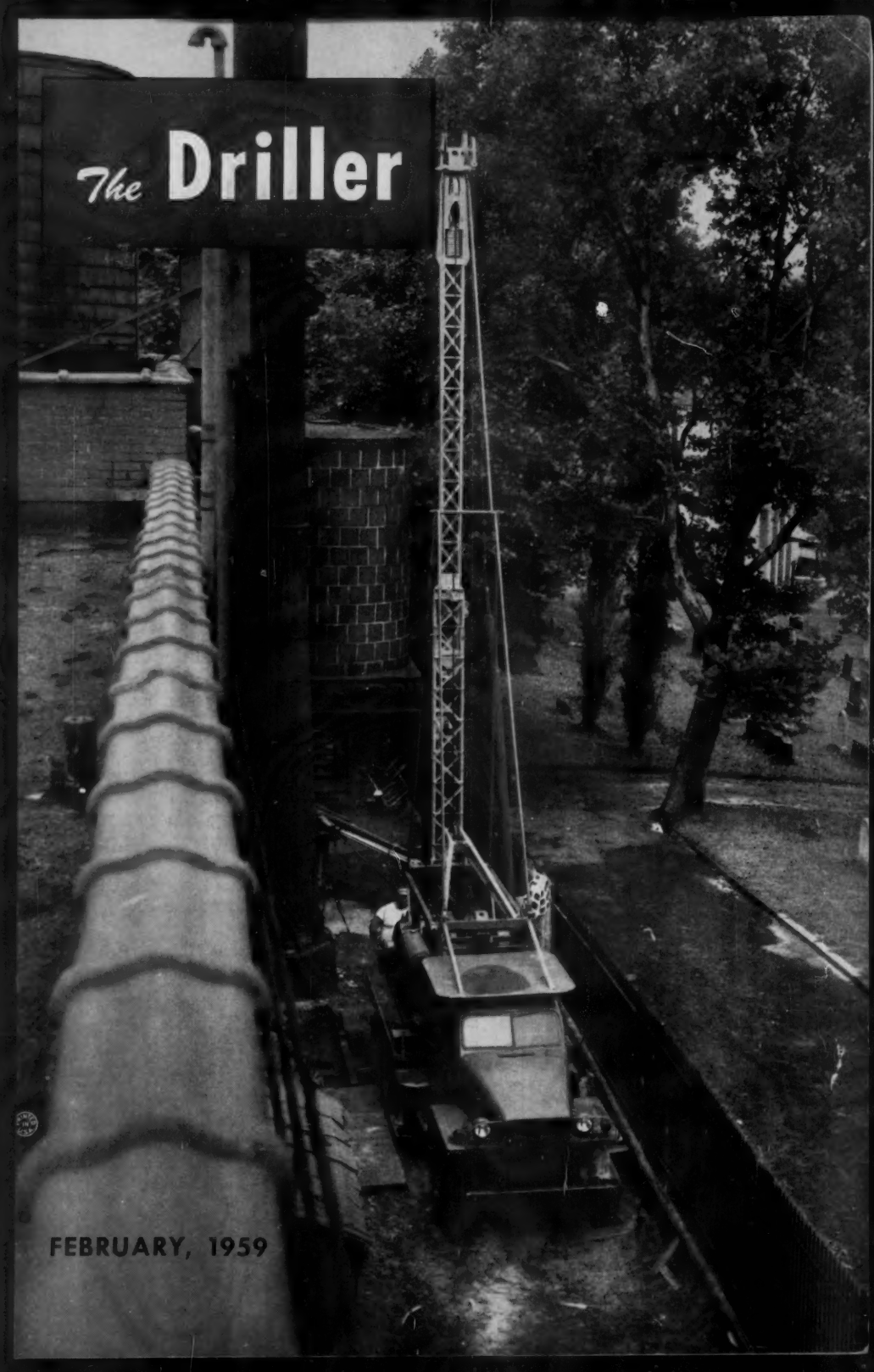

The Driller
FEBRUARY, 1959

Survey PROOF!

Drillers Prefer Bucyrus-Eries 4 to 1 as BEST ALL-ROUND!

2 to 1 over all other makes combined!
2 to 1 in Construction and DESIGN!
2 to 1 in Low UPKEEP and PERFORMANCE!

And, the survey shows, it's
4 to 1 as BEST ALL-ROUND!

PREFERRED 2 to 1 for THESE REASONS, Too!

Dependability • Easy Set-up • Speed and Mobility
Past Experience • Parts and Service

Year after year, Bucyrus-Erie drills prove overwhelming favorites of drillers everywhere. According to a recent survey conducted by an independent research bureau, Bucyrus-Eries are preferred 2 to 1 over all other makes combined . . . 2 to 1 for a host of reasons listed above.

With their superior drilling motion, smooth operation, low upkeep, long life performance, and time-saving mobility, Bucyrus-Eries give you the best opportunity for profitable well contracting. From the smallest to the largest, each model is designed and built to meet the requirements of its range.

Each sale is backed by Bucyrus-Erie's after-the-sale bonus: prompt, efficient service. Bucyrus-Erie normally carries an average parts and tools stock of $1-million. Eighty per cent off-the-shelf service is available all across the country from distributors, a centrally located plant, and a factory operated service station.

See your nearby Bucyrus-Erie distributor today for complete facts on drills that give you the most for your money. 123W58C

1-W • 20-W • 22-W • 60-L • 28-L • 36-L

BUCYRUS ERIE

FIRST with the FINEST in Water Well Drills

BUCYRUS-ERIE COMPANY
DRILL DIVISION U. S. HIGHWAY 40 WEST, BOX 324, RICHMOND, INDIANA

FIRST in the Field . . .

THE NEW

Monitor

PJ

Combining the sealed safety of pitless installation with the economy of the jet pump

A completely new idea in water system prefabrication . . . beautifully simple, efficient, and practical. The PJ is an entirely new pitless-pump unit which forms the upper part of the well casing and provides complete sealing against contamination meeting the strictest well codes. No pit or heated enclosure is needed. The PJ includes a specially designed centrifugal jet pump mounted within the well casing below the frost line. Only a single line of pipe from the well is used—eliminating the return pipe ordinarily needed with jet installations, with the resulting advantages: 1) Substantially reduced installation, labor and pipe cost 2) No pipe enclosure required . . . line is always under pressure 3) No chronic jet clogging from pipe scale 4) Shorter water circuit increases efficiency.

Begin your PJ installations with your next job. Mail this coupon for additional information

BAKER MFG. COMPANY Evansville, Wis

NAME .....

OCCUPATION .....

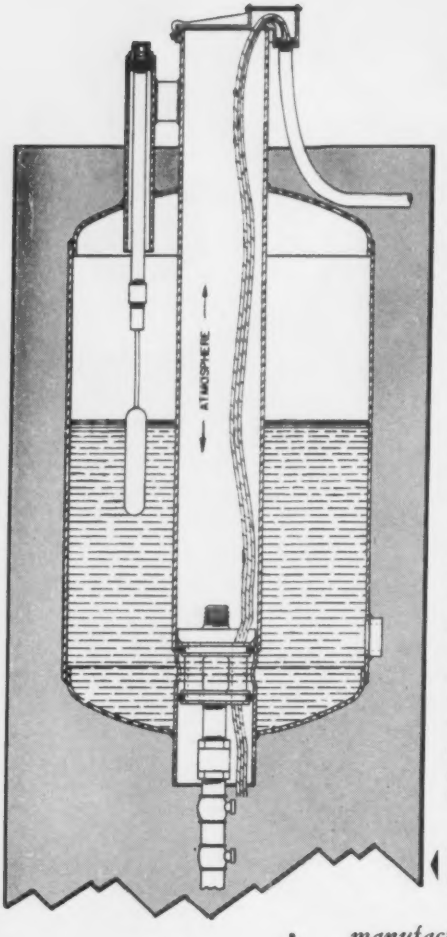
STREET .....

CITY ..... STATE .....

MY DISTRIBUTOR IS .....

CITY .....

TUBBS SUBMERSIBLE PITLESS ADAPTER TANK



CUT-AWAY VIEW OF 6-IN. 60 GAL. GRADE-A SHOWING STRAIGHT THRU EYE VIEW.

CAPACITIES FROM 40 TO 315 GAL.

These units meet the most rigid state and federal codes, including Wisconsin grade-A, providing true full-height well balanced installations. Sizes range from 40-gal. thru 315-gal. with 4", 5", 6" or 8" Tubbs Sanitary Pitless Adapter fitted within, from end to end. Standard "tall" and "squat" styles available.

Give your submersible pump installations the finest serviceability possible by using Tripar-Tubbs designed Sanitary Pitless Adapter Tanks. No need to ever have to "dig up" your jobs later for pump and motor repairing, or air-bleeder replacement or well screen cleaning. No danger of pressure loss thru top-flange gaskets. The inside well diameter is never reduced nor obstructed. Patented sanitary topside seal with cable box included.

THE ACCENT'S ON *Simplicity*
TRIPAR ENGINEERING DESIGNS

manufactured and guaranteed by

WHITEWATER MANUFACTURING CO.
WHITEWATER, WISCONSIN

The Driller

South Milwaukee, Wisconsin

Vol. 33 No. 2

February 1959

CONTENTS

On Our Cover · · · Working in tight quarters at a Pittsburgh laundry, a 22-W drill belonging to Pioneer Drilling and Pump Co., Washington, Pa., drills an 8-in. diameter well to a depth of 250 feet. A complete story covering the firm's operations will appear in a future issue of The Driller.

The Vinstrands Expand 12
Len and Cal Vinstrand expanded their already diversified business last summer with the purchase of a new Bucyrus-Erie #12 Bit Dresser.

Bring on Your Bureaucrats — by Ray Day 18
This Spokane drilling firm speaks highly of government contract work and frequently commutes thousands of miles for such jobs.

News of the Month 22

From the Mailbag 28

The Driller and the Law 32

Bits from the Wit Sharpener 34

Bargain Counter 48

ADVERTISERS IN THIS ISSUE

Acme Fishing Tool Co. 9
American Steel & Wire Div. 30
Baker Mfg. Co. 3
Berkeley Pump Co. 33
Brady Air Controls, Inc. 25
Bucyrus-Erie Co. 2,40
Cook Well Strainer Co. 36
Decatur Pump Co. 51
Deming Co., The ..... 10&11
Hydra-Flex, Inc. 42
Jensen Bros. Mfg. Co., Inc. 38
Mark, Clayton & Co. ..... 44&45
Memphis Equipment Co. 43
Mission Mfg. Co. 35
Morrison Co., The 7
Myers, F. E. & Bro. Co. 47
National Tube Div. 8
Orangeburg Mfg. Co. 6
Radiant Utilities Corp. 50
Reda Pump Co. 31
Spang & Co. 37
Strataflo Products, Inc. 23
Tait Mfg. Co., The ..... 26&27
Thompson Pipe & Steel Co. 41
U. S. Steel Corp. 8,30
Valley Steel Products Co. 29
White Flomatic Corp. 39
Whitewater Mfg. Co. 4
Williams Products Co. 24

K. E. Albrecht, Editor
Don Foelker, Assistant Editor
W. J. Walsh, Consulting Editor

M. B. Jaeger, Publisher

H. A. Burkhardt, Manager
E. W. Arndt, Art Editor
W. C. Van Dyke, Sales Manager

Subscription price $1.00 per year — Single copies 25 cents

Canada and Foreign, $2.00 per year

Copyright 1959 by Bucyrus-Erie Company. Published monthly at South Milwaukee, Wisconsin. Free to water well drilling contractors and operators. No subscription, paid or free, can be accepted unless the subscriber's occupation is given. Right is reserved to refuse foreign subscriptions. Volumes available on microfilm.

GIANT STRENGTH!

"Giant" molecules make this plastic pipe Slit-Proof!

The longer the molecules—the stronger the pipe! And the "giant" molecules in Orangeburg *SP* Plastic Pipe are 40 times longer than those in conventional polyethylene pipe. These longer molecules "lock" together to make Orangeburg *SP* exceptionally tough and *completely slit-proof*. *SP out-performs* conventional polyethylene pipe 3,000 to 1 in laboratory slit tests. In quick-burst tests, *SP* provides a 7 to 1 safety factor over recommended working pressures. *Yet Orangeburg SP costs no more!* In addition, Orangeburg *SP* Plastic Pipe is kink-resistant, lightweight, flexible and easy to install. Available in ½" to 2" sizes. Lengths to 400'. Approved for drinking water service by National Sanitation Foundation. Write for free sample & literature, Dept. D-29, Orangeburg Manufacturing Co., Orangeburg, N.Y.

nsf

LIFE

ORANGEBURG MANUFACTURING CO.
A Division of The Flintkote Company, Manufacturers of America's Broadest Line of Building Products

ORANGEBURG® *SP* Plastic Pipe

With the new Morrison WELL-TANK WATER SYSTEM you need no pit — no welded adapters — no pump house — and NO ABOVE-GROUND TANKS!

The greatest advance in water system design since the submersible pump, the new Morrison WELL-TANK WATER SYSTEM meets all sanitary well code requirements . . . 100% safe for Grade "A" farms, restaurants, public buildings and homes.

There's no sweating tank in the house — no lost space, no pump noise. Easy to install, no welding. Pressure at the well makes it ideal for furnishing water to any number of buildings.

Higher unit sale for well driller and pump installer, with money savings up to many hundreds of dollars for your customers.

The new Morrison Well-Tank Water System fits well casings from 4" to 7" without adjustment. Tank capacities are 60, 120, and 265 gallons, and the unit can be used with any submersible pump up to 2 H.P.

Check . . . Mail this coupon for the whole story . . .

THE *Morrison* COMPANY

125 West Melvina Street, Dept. D, Milwaukee 12, Wisconsin

Tell us more . . . about the new MORRISON "Aqua-Flo" WELL-TANK WATER SYSTEM.

Name .....

Address .....

City ..... State .....

Attn.: of .....

Faster, easier installation!

USS National Double-Duct Polyethylene Pipe

(NSF Grade)

USS NATIONAL Double-Duct Polyethylene Pipe (NSF Grade) consists of two separately extruded, joined pipes. Expressly designed for jet well installations, it facilitates attachment of the pipe to the venturi and makes it easy to feed the drop pipes into the casing. Made of 100% virgin on-grade polyethylene resin, NATIONAL Double-Duct Polyethylene Pipe is light in weight, corrosion-proof and durable. Available in four different sizes—standard and 75# pressure-rated.

For complete details, write to National Tube Division, United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pennsylvania. Ask for Bulletin 29.

USS and National are registered trademarks

"The world's largest and most experienced manufacturer of tubular products—
NATIONAL TUBE"

National Tube Division of United States Steel

Columbia-Geneva Steel Division, San Francisco, Pacific Coast Distributors • United States Steel Export Company, New York

There is more than meets the eye in...

ACME DRILLING JARS

Carbon or Alloy Steel

You can't see the higher quality steels and the controlled heat treating procedures that help make Acme jars last longer. Nor can you see the experience and integrity that stand behind these Acme products.

But you can see the Acme trademark—the stamp that means these jars have passed many exacting tests of quality control.

Acme offers two types of drilling jars—CARBON STEEL, first choice with many drillers and ALLOY STEEL, for extra footage and longer life.

Both type jars are warranted for a specific amount of wear—NO time limitation on the warranty.

Sold through dealers everywhere

ACME FISHING TOOL CO.
Box 860 — Dept. 20
PARKERSBURG, WEST VIRGINIA

ANNOUNCING *New*

DEMING

Pumps • Systems

TOP QUALITY
PROVEN DESIGN
DEPENDABLE SERVICE

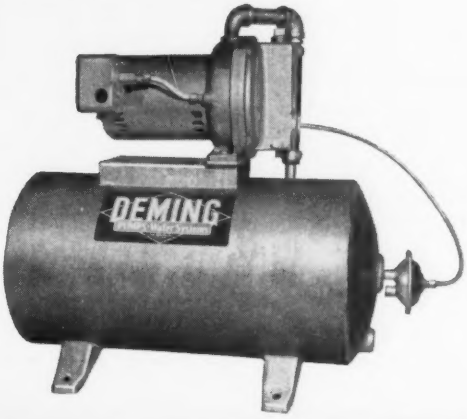
DEMING # 2ALC 4
SUBMERSIBLE

- **⅓ Horsepower**
- **Deeper Settings to 80 feet**
- **3-Wire Cable**

SEND FOR MORE INFORMATION ON THESE TWO NEW PUMPS IN THE BIG DEMING LINE!

DEMING #4961
"MAJORJET"

- **Self-Priming**
- **Shallow-well**
- **High-Pressure**
- **High-Capacity**



BOTH LOW PRICED

Send me descriptive bulletins
- ☐ Deming "Majorjet" No. 4961
- ☐ Deming Submersible No. 2ALC4

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____

The DEMING co.
215 Broadway • Salem, Ohio

Cal (L) and Len Vinstrand chuckle as they recall some of the unusual jobs they have been called on to handle with their versatile homemade pump servicing rig.

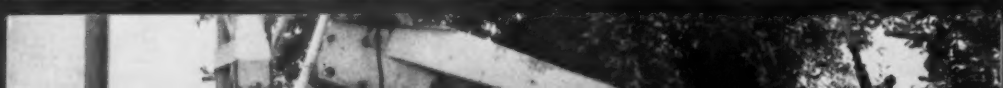
The Vinstrands Expand

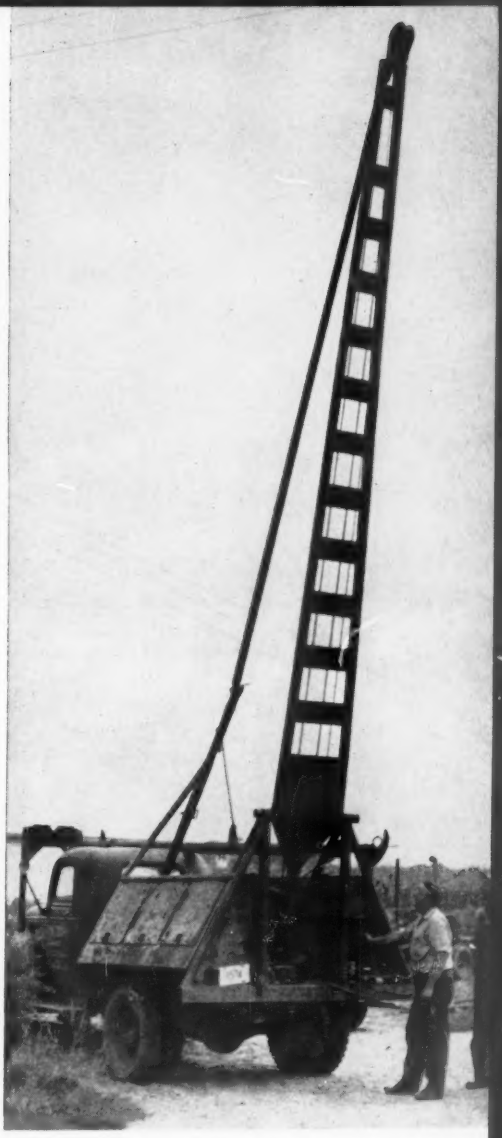
Len and Cal Vinstrand expanded their already diversified business last summer with the purchase of a Bucyrus-Erie #12 Bit Dresser.

IF some ambitious chap were interested in starting a business in Osco, Ill., he'd have to make it a sort of Jack-of-all-trades outfit. There just aren't enough people living in and around the tiny, northeastern Illinois town to support a business offering any sort of specialized service.

Take the Vinstrand brothers, Leonard and Calvin, for example. They operate a water well drilling business, garage (automotive and tractor repair), blacksmith shop, and a plumbing and electrical repair service out of a large (48′ x 135′) brick and concrete block shop building, located smack in the center of Osco. And they expanded their range of services still further last summer, when they took delivery on a Bucyrus-Erie #12 Bit Dresser and Sunbeam Oil Furnace. Now they're in the bit dressing business, too. Talk about being diversified!

Len and Cal, as the two Vinstrands are known thereabouts, will readily laud the benefits to be derived from having more than one iron in the fire. "Take this 'recession' we've been hearing so much about of late," offered 39-year-old Len with a hearty grin.





Top of derrick on pump servicing rig is 30 feet high when it is fully extended.

"We don't even know what the word means. It seems as if, when one thing is rather slack, our automotive repair work for example, the rest of our business picks up, and we have more to do than ever. These things just sort of balance themselves out."

"One thing that certainly hasn't 'recessed' is our water well drilling business," added quiet-spoken Cal, 34. "Ever since we first started drilling wells in 1954, there have been very few times that our drill rig has stood idle in the yard."

The first drill the Vinstrands owned was a Bucyrus-Erie 20-W. They operated that drill until February, 1957, when they sold it and purchased a new 22-W. The drill is mounted on a 1946 Chevrolet 1½-ton truck and is spooled with 800 feet of ¾-in. drilling line. Total weight of the tools on the 22-W—22-ft. stem, jars, socket, etc.—comes to almost a ton.

Good Farming Region

The section of Illinois in which Osco is located is reputed to be one of the best corn-producing and stock-feeding areas in the state. The countryside is dotted with many large, prosperous farms. These farms provide the Vinstrands with their major source of water well business. "As a matter of fact," stated Len, "at least 95% of our drilling is for farm wells."

The team tries to confine its drilling activities to within a 20 or 25-mi. radius of Osco. The wells generally average about 400 feet in depth. They are usually drilled at 8-in. diameter to between 240 and 260 feet, where bedrock is encountered. The wells are then cased to that depth and drilling is carried on down at 6-in. diameter to the average 400-ft. completion depths. The water-bearing formation is generally Niagara or White Limestone.

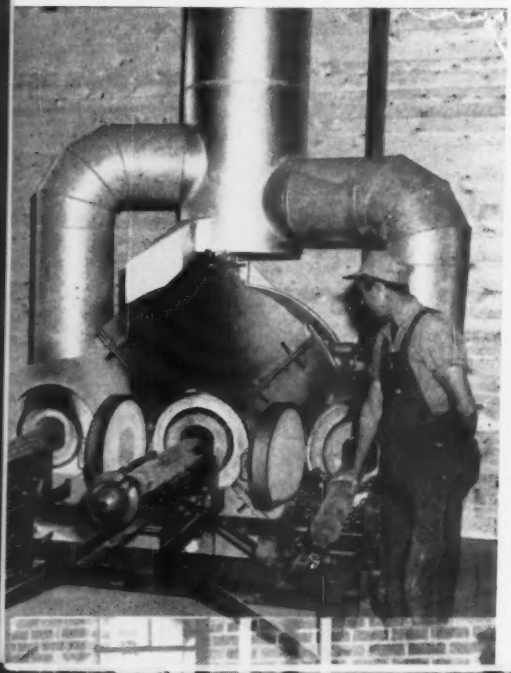
Formations are far from consistent, however, and almost anything can be encountered as drilling progresses. A case in point is the well the 22-W

Driller Elmer Gustafson operates the Vinstrands' 22-W on a 6-in. well for a farm near Kewanee, Ill. At 550-ft. depth here, he expected well to bottom at 650 feet.

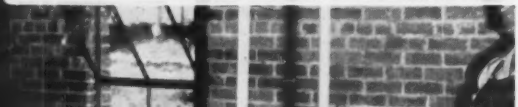
was drilling on the Harry Charlet farm, two miles east of Kewanee, at the time of *The Driller's* visit. "We've hit just about every conceivable formation while drilling this well," Cal related. "There were alternate layers of sand and sea mud near the top. Then we started running into layers of shale, more sand, coal, shale again, etc. We finally hit bedrock at around 440 feet, which is a lot deeper than usual. I'll let you take a look at the log on this well. It's the darndest thing you ever saw.

"I'd hate to tell you how much time we've already spent on this well," he added, "but the worst is over. We're down 550 feet now. We figure that we should bring in a good supply of water at around 640 feet. That will make this the deepest well we've drilled as long as we've been in the business."

Driller Elmer Gustafson of Lynn Center was at the controls of the 22-W on this well. He had been operating the 22-W for the Vinstrands only part-time, with Cal usually filling in at other times. But since the acquisition of the new bit dresser, Cal will be spending more of his time



Three drill bits are in position ready for heating in the Sunbeam Oil Furnace.



Racks and tank for tempering bits after

working with Len, dressing drill bits. Gustafson will then become a full-time driller. The Vinstrands estimate that it takes them, on the average, 10 days to complete a 6-in. well in their area. They install the pumps, mostly submersibles, on the majority of the wells they drill.

Big Plans for Bit Dresser

Len and Cal have big plans for their new bit dresser and oil furnace. They eventually intend to sharpen bits for drillers within a 150-mi. radius of Osco. They've only had the bit dresser since June of last year, but already their plans are beginning to materialize.

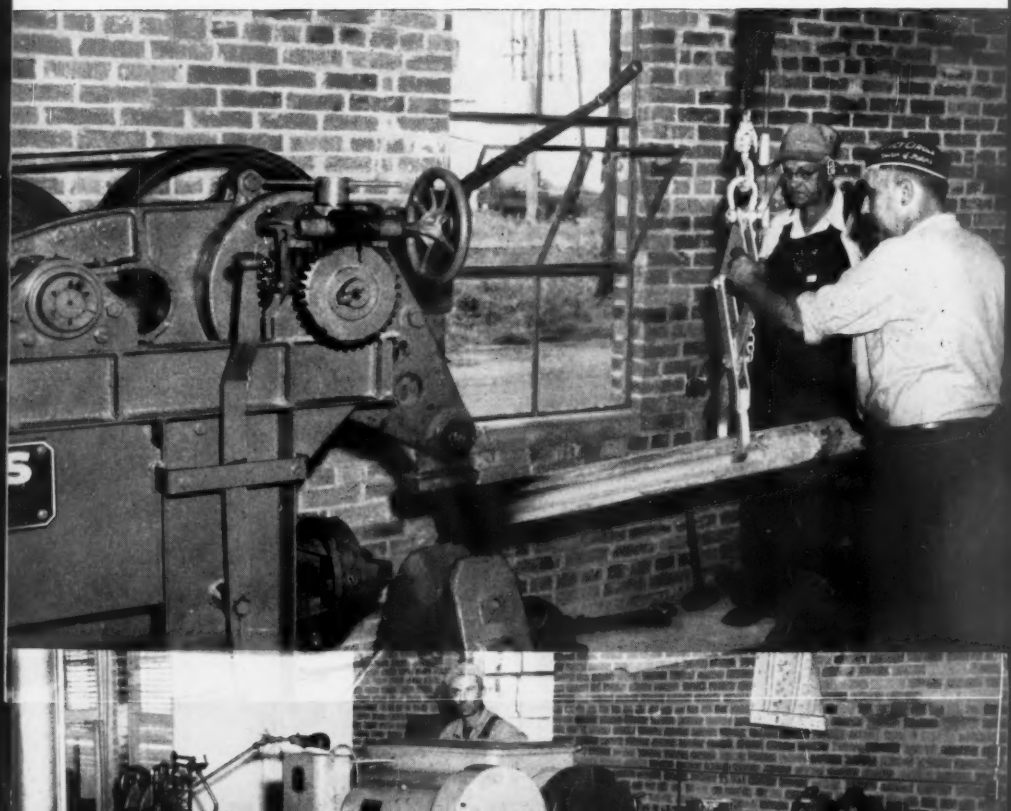
"We've mailed letters announcing our bit dressing service to almost 300 drillers in the area," Len remarked, "and the response has been far better than we anticipated. A lot of work has already come in as a direct result of those letters. When word gets around that the service is available, we figure we'll have more work than we can handle.

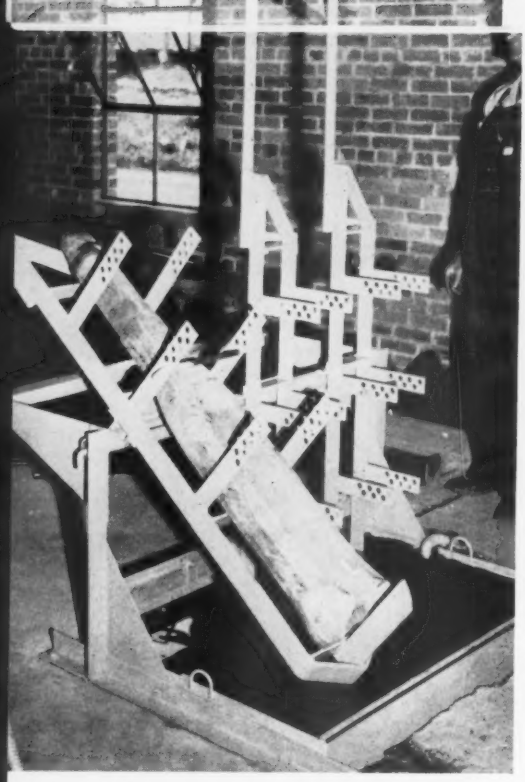
"We've been considering the possibility of offering a pickup and delivery service on the bits we dress," he added. "This, of course, will be economically feasible only after our volume has increased to the point where we can establish regular pickup and delivery routes."

The bit dresser, which can handle bits from 5⅝ to 12 inches in diameter, is located at one end of the new 48′ x 58′ brick addition to the firm's shop building. A short distance from the bit dresser is the furnace, which is used for heating the bits prior to sharpening them.

Two-stage heating of the drill bits for forging is provided by the furnace. It is equipped with two preheat chambers (approximately 1,500°F.) and

After bit is heated to proper temperature, it is lifted by overhead crane to bit dresser, where it is lowered into position for hammering into desired shape.





Racks and tank for tempering bits after shaping were designed by the Vinstrands

one high heat chamber (2,250° F.). Each heating chamber holds one bit.

The preheat chambers provide slow heating of cold bits and reduces the danger of rupturing the steel. The bit steel is not harmed by soaking at the preheat temperature range. After adequate preheating, the bit is placed in the high heat chamber. Rapid heating of bits in this chamber results from the high velocity of hot gases surrounding the bit. The furnace is constructed with large-size openings to accommodate 10-in. to 12-in. bits. Two sizes of adapter tiles are used to reduce the openings for smaller bits.

The Vinstrands figure they can sharpen up to 20 or 30 6-in. bits, or up to 16 9-in. bits in one 8-hr. shift. And, according to the brothers, the machine-dressed bits will drill more hole before requiring redressing than bits dressed by hand.

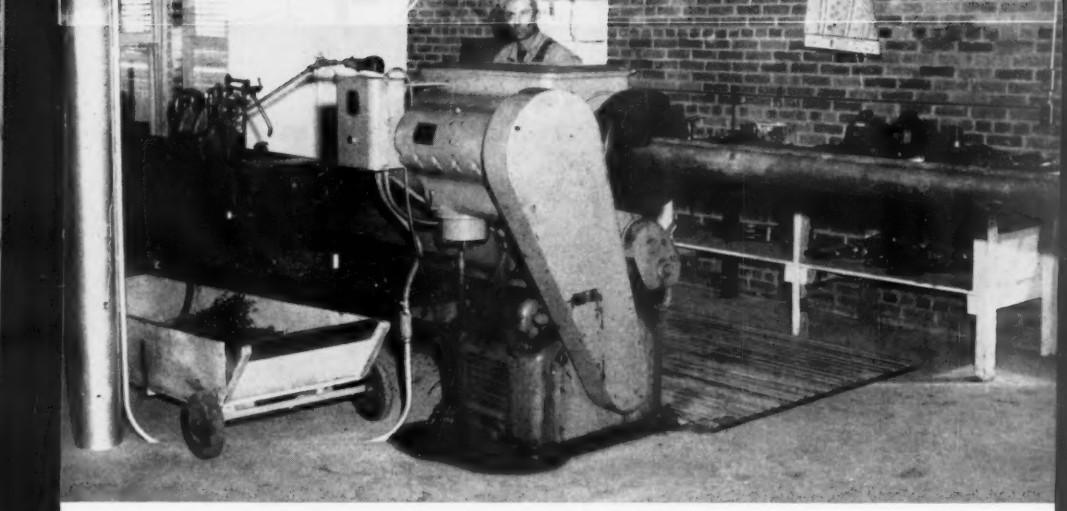
The shop is laid out in such a manner as to permit the greatest possible efficiency in dressing the bits. Included in the layout are a dull bit rack, the oil furnace, bit dresser, cooling rack, quenching tank, and a dressed bit rack, in that order. An overhead 1-ton crane permits easy lifting of the bits from one step in the sharpening process to the next.

Another piece of equipment which is proving to be a mighty worthwhile item for the Vinstrands in conjunction with their bit dressing business is a #18 Lehman hollow spindle lathe, which is used for joint repair work. The lathe can handle stems of any length and up to seven inches in diameter.

Began Drilling in 1954

The Vinstrands added water well drilling to their already long list of services in 1954. "In 1949, we had a homemade rig we used for pump servicing and did a lot of that type of work for quite some time," recalled Len. "Frequently, customers would inquire where they could have new wells drilled. We'd steer them onto various drillers who would drill the wells for them. We, in turn, would expect to get the pump installation work on the completed wells. But after a while, some of the drillers, who got the jobs at our recommendation in the first place, began installing the pumps, too. That sort of burned us up, so we decided to buy a water well drill and go into the drilling business ourselves."

The pump servicing rig, which the



Lehman #18 hollow spindle lathe handles any length stem up to 7-in. diameter.

Vinstrands designed and built in 1949, has been a real labor-saver for them on well cleanout, pump installation, pump pulling, etc. Mounted on the back of a 1946 Chevrolet, 1½-ton truck, the derrick of the rig is 30 feet high when fully extended. When not in use, the one-piece derrick folds down over the cab of the truck. A collapsible brace reaching from the top of the derrick to just behind the truck cab is the only support necessary to keep it erect when it is in use. Along either side of the truck rear are completely enclosed parts bins for storage of pump parts, tools, etc. The rig, which has a lifting capacity of five tons, is spooled with 500 feet of ⅜-in. sand line. "That rig is about the handiest piece of equipment we own," chuckled Len Vinstrand. "We've used it for everything you can possibly imagine . . . even lifted a cow off a fence with it one time."

"Perhaps we'd better explain that one," Cal interrupted with a smile. "One morning a farmer from just outside of town came rushing in here all excited and asked us if we could help him out. It seems that one of his cows decided to take a powder from the pasture, and got herself hung up over a fence post in the process. We drove out there with our pump rig and surveyed the situation. The solution to the problem was quite simple. We just raised our derrick, wrapped a sling around the cow, hooked it up to our line and lifted. Off she came, none the worse for her harrowing experience."

Talk about Jacks-of-all-trades! The Vinstrand brothers are keeping themselves plenty busy with their varied activities. When their bit dressing business is going full swing, they'll be even busier. We're wondering what field they'll be branching out into next.

When writing advertisers,

please say you

saw it in

THE DRILLER

Bring on Your Bureaucrats!

This Spokane drilling firm speaks highly of government contract work and frequently commutes thousands of miles for such jobs.

by Ray Day

GOVERNMENT drilling isn't the worst work in the world. Fewer misunderstandings are the rule on jobs governed by federal specifications. The specifications may be tough, but they're clear. There's little or no chiseling when the work gets under way. Government engineers don't welch on their promises. What's more, the men who hold the purse strings realize that good, dependable drilling costs money, and they're willing to pay reasonable prices to get it.

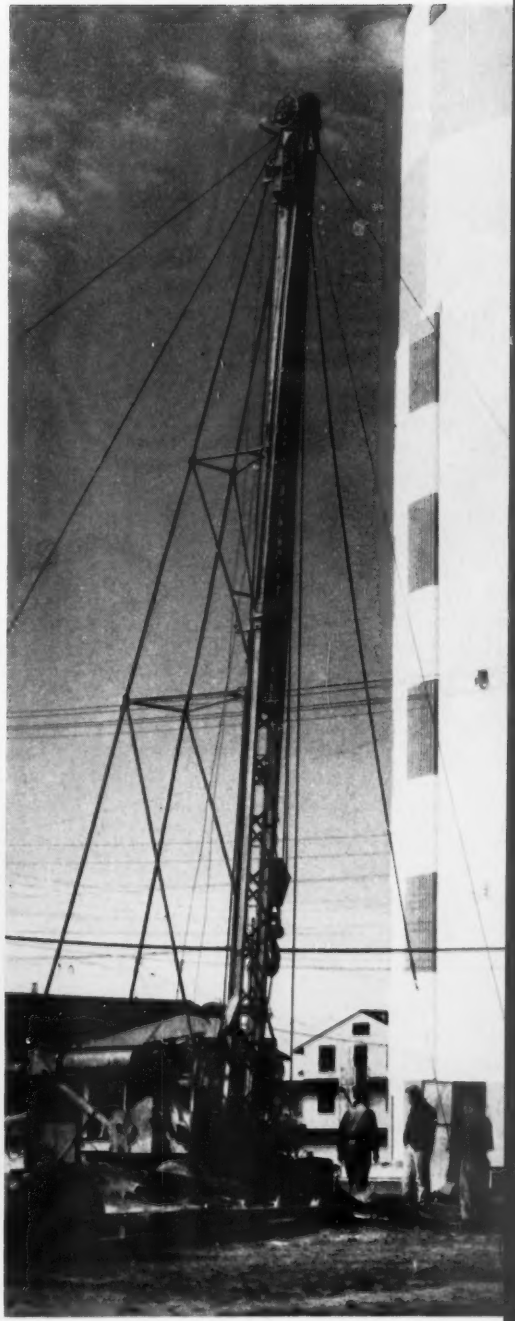
These conclusions may run counter to some drillers' opinions, but they were formed only after long, steady

A final load check was made by Dan Gmeiner (in truck) and Arnold Holman before they started the 4,800-mi. truck-trailer trip from South Milwaukee to Alaska.

work over the past decade and more for the Army Corps of Engineers, the U. S. Bureau of Reclamation, the U. S. Forest Service, and the Bureau of Land Management. Those conclusions are the considered opinion of both E. A. Holman and his son Arnold, co-owners and managers of E. A. Holman & Son, Inc., drilling contractors. It's perhaps significant to say that the home headquarters office of the firm is in Opportunity—Opportunity, Wash. —but in a way, Opportunity, Wash., extends considerably wider than its status as a Spokane outskirt. Opportunity for the Holmans means the entire state of Washington, the states of Idaho, Montana, and Oregon. It even means Alaska.

To understand the reasoning be-

This Holman 28-L is working on a water supply well at Geiger Air Force Base.

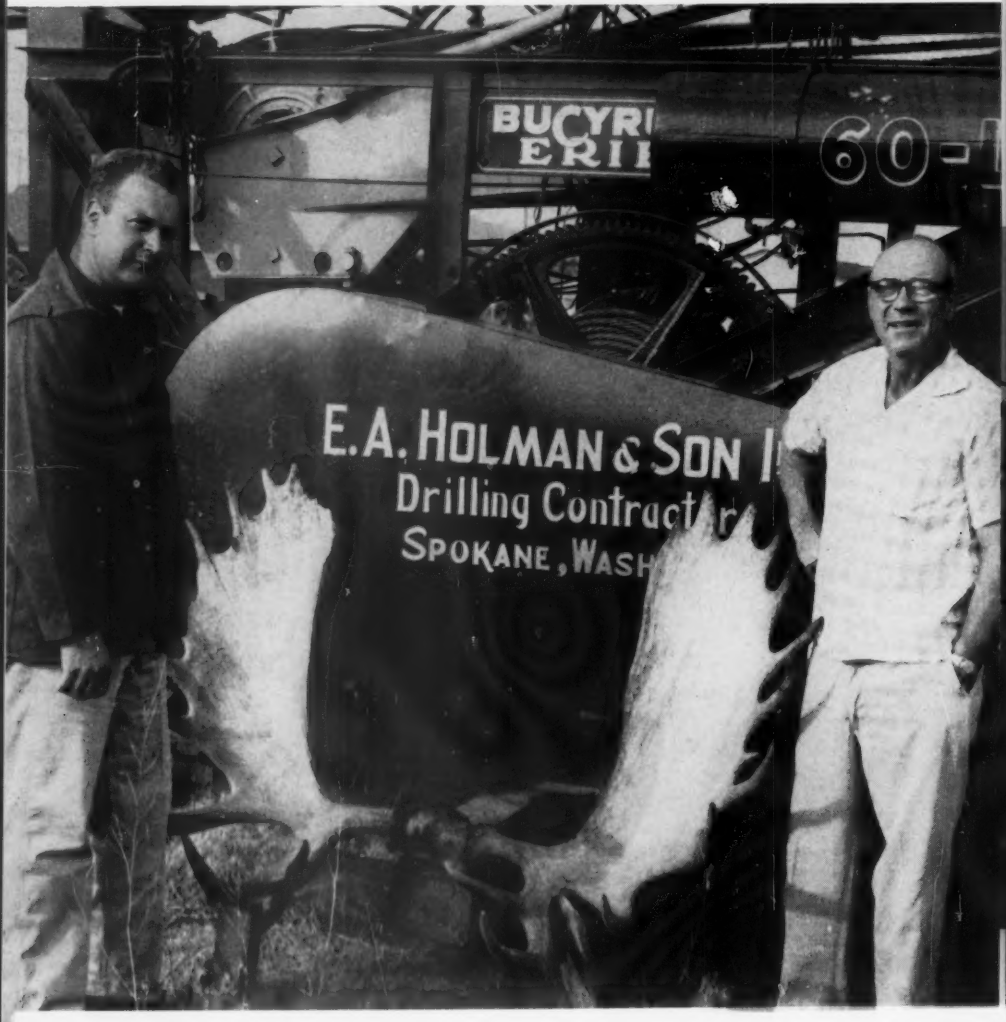


hind the Holmans' opinions of government work, it helps to know how they operate. Take, for example, a job they tackled last summer.

Government officials with the Corps of Engineers got in touch with the Holman firm about the end of June. The Holmans were invited to bid on some exploration drilling 75 miles away from where the roads end out of Fairbanks, Alaska. The Holmans made a successful bid, and then found what they were up against. The firm had only ten days to get to Fairbanks and get the job started, and they were expected to push it at top speed. And at that particular moment, the firm lacked exactly half the equipment it needed to do the work!

The Holmans loaded up some

Arnold Holman (left) stands beside a set of antlers from a moose his father, E. A. Holman (right), killed on the Alaska location. The moose was shot close enough to the drill rig that it could be dressed out right on the bed of the winch truck.



equipment they needed on an airfield drilling job at Miles City, Mont., putting it on their 37-ft. low-bed trailer and Peterbilt tractor, telephoned an order to South Milwaukee, Wis., for a new Bucyrus-Erie 60-L drill and a 22-W, and set sail. A few days later, Arnold Holman and Dan Gmeiner were loading the two machines at a dock in South Milwaukee. They were back at Miles City, Mont., in 38 hours of driving time. There they set the new 60-L drill off to finish the job, and soon were back in Spokane. The new 22-W and an older 22-W, fully reconditioned for the Alaska job, were loaded onto the big truck and trailer along with 1,000 feet of 6-in. pipe.

E. A. Holman drove his car up the Alcan Highway, and was in Fairbanks when the job was slated to begin. The truck with its loaded equipment was only 48 hours late, and that was only because the rig had 14 flat tires on the way north.

Drill Exploration Holes

The whole shipment, truck and all, was then placed on two Alaska Railroad flatcars and hauled into the job site, where the two machines were soon joined by another Bucyrus-Erie and two Stars, belonging to the Corps of Engineers and other contractors. Their assignment was to put down 6-in. diameter exploration holes over a defense construction area.

On that job, Holman developed and perfected one of the first successful methods of taking undisturbed Permafrost samples, and drilled 18 holes up to 400 feet deep in only two months. Since the end of the job coincided with the hunting season, Holman and driller James S. Dishman each shot a moose, close enough to the drill rigs to butcher them out with the aid of the winch truck. They were back at Spokane headquarters by the end of September.

Just as soon as they got back they washed up the 22-W's, got them in operating condition again in about two days, and were ready to pick up work again in the Spokane area as if nothing whatever had happened meantime. This illustrates how flexibly the Holmans operate over an exceptionally wide area. And, having cultivated such flexibility, it's only natural for them to bid the government jobs which often scare other drillers off.

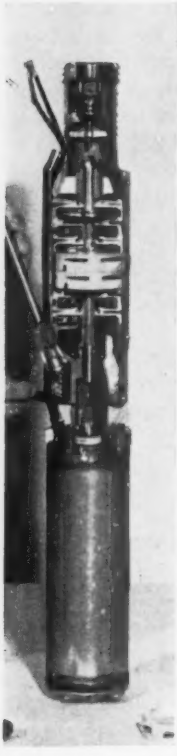
The Holmans estimate that about 75% of their $150,000-per-year drilling volume is in government work, chiefly with the Army Corps of Engineers on defense and civil work. Much of the drilling consists of the development of water for military installations, but the engineering agen-

(Continued on page 38)

"Relax . . . your ammunition will be here any minute now!"

News of the month

Deming Improves Submersible Pump Shaft Connection



The Deming Co., Salem, Ohio, has recently announced that a flatted shaft and spline coupling assembly is now being built into its submersible line of pumps.

The company claims that the flatted, stainless steel shaft creates positive alignment and prevents slippage of impellers. It provides eight times the driving force of a keyed shaft. A self-aligning, taper locking, spline shaft coupling is an exclusive feature in Deming submersible pumps. The splines on both pump and motor shafts create a positive, slip-free connection with no pins to shear.

Two St. Louis Agents Named by Carlon

Van De Venter Engineering Co., 2207 Pine St., St. Louis, Mo., and Hoeynck Sales Agency, 6432 Hampton Ave., also St. Louis, have been appointed agents for Carlon Products Corp., Cleveland, Ohio. The firms will handle Carlon's complete line of plastic pipe, which includes sewer and drain pipe, plastic well casing, irrigation pipe, and other pipe and tubing products of polyethylene, high-density polyethylene, *Kralastic,* and polyvinyl chloride.

Van De Venter will service industrial oil and municipal markets in eastern Missouri and southern Illinois for Carlon. Hoeynck services plumbing and hardware firms in the same area.

New Offset Design Well Cap Announced

Announcement has been made by Decatur Pump Co., Decatur, Ill., of a new *Burks* offset design well cap, which is claimed to eliminate the use

REDUCE SERVICE CALLS

GET BETTER FOOT VALVE OPERATION

Strataflo

WITH STRATAFLO FOOT VALVES

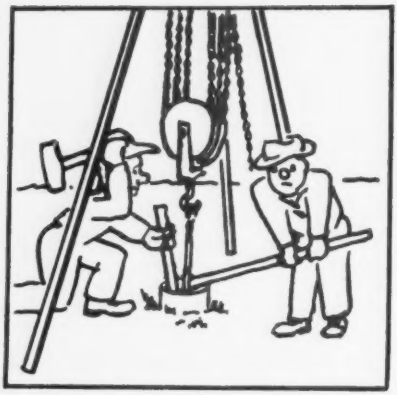
Save the cost of foot valve service calls by installing Strataflo Foot Valves. Valves have only one moving part. No springs. The Buna-S rubber poppet won't stick or leak. Wire brass strainer won't clog or corrode. These valves reduce wear and tear on pumps, increase water flow and stop leakage. Ideal for jet-type pumps. Order Strataflo Foot Valves today to reduce service headaches. Write for bulletin number 103 showing Strataflo Foot Valves and Check Valves.

Order from your jobber.

STRATAFLO PRODUCTS, INC.

FORT WAYNE, INDIANA

CAN'T GET IT OUT?



Install WILLIAMS LIFT-OUT-SEAL PUMP ADAPTERS

- Patented design provides quick positive seal
- Units can be removed at any time without forcing — No special equipment needed
- Resealing is equally easy and always positive
- Will not "freeze" in place in well

Exclusive features mean extra value and satisfaction.

See your distributor or mail coupon today for illustrated literature.

WILLIAMS PRODUCTS CO.
P. O. Box 1181, Joliet, Illinois

Please send information about Williams Lift-Out-Seal pump adapters.

Name .....

Street .....

City ..... Zone ..... State .....

My Distributor is .....

City .....

of elbows, tees and nipples on offset installations, thereby speeding hook-up and at the same time insuring a safe, sanitary seal.

Body and packing glands are of heavy-cast gray iron, prime plug is brass, packing is a blend of flax fibre and jute, and cap-screws are rust-proof, the company claims.

The new well cap is designed primarily for use with *Burks HV-15* and *HV-20* jet pumps, but will accommodate any pump with 1¼-in. suction and 1-in. pressure connections. When used with *HV-15* and *HV-20* pumps, the well cap may be bolted directly to the pump case, thereby allowing the pump to be installed close to the well.

For full details, write to: Decatur Pump Co., Department TD, 2750 Nelson Park Rd., Decatur, Ill., referring to *Burks 8950 Well Cap.*

Clayton Mark & Co. Appoints Area Representatives

Announcement has been made by Clayton Mark & Co., Evanston, Ill., of the recent appointment of two pump and well supply representatives.

James K. Cullinan, Columbus, Ohio, has been appointed representative for the company in Ohio, western Pennsylvania, and eastern Kentucky.

He has been with the sales department of Clayton Mark since his graduation from Marquette University in February, 1957.

William Beavin, 1801 Sweetser St., Evansville, Ind., will represent the company in Indiana and central Kentucky.

Beavin has been a field engineer for Clayton Mark for the past three years. For the previous thirteen years, he had

been in the plumbing, heating, and water system business.

Western Pump Co. Announces *Sequoil Tubeline* Brochure

The availability of a new brochure on the history of *Sequoil Tubeline* has been announced by Western Pump Co., San Jose, Calif.

The brochure tells the story of Western Pump's continuous research and development activities aimed at solving the problem of reducing wear from the "whip" of continuous steel shafts used to power high-speed turbines. Research and determination led them up the mountains to California's wealth of redwood trees! Redwood, it was found, in its natural state has the qualities of medium weight, low shrinkage, ease of working and high resistance to decay that combine to make it an ideal material for tube-lining.

The brochure has letters telling about *Sequoil Tubeline* from successful users all over the world.

Copies of the brochure are available through all Western Pump dealers west of the Mississippi. Or, persons interested in obtaining a brochure may write direct to Western Pump Co., Department TD, P. O. Box 47, San Jose, Calif.

Tait Sub Line Now Features 6-in. Models

A line of 6-in. Rapidayton submersible water pumps, incorporating single and three-phase models ranging from 5 to 15 hp, is now being produced by The Tait Manufacturing Co.

There are three series: high head,

(Continued on page 46)

new

Brady WATER TANK that's superior for domestic water systems

- Doubly protected against corrosion — baked-on Epon plastic coating over Armco Zincgrip* steel.
- No spud and plug in top head to leak.
- No spud and plug in bottom head to leak.
- Air Volume Control spuds properly located to produce 50% greater draw-down when installed as instructed.

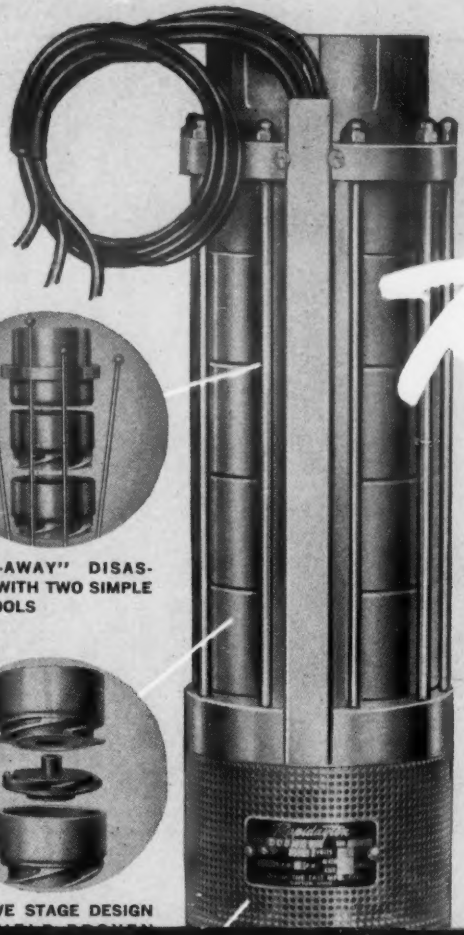
*Registered Armco Steel Corp.

Ask your favorite wholesaler for complete information or write:

IT *IS* BETTER AND *LOOKS* BETTER

Brady

AIR CONTROLS, INC.
18th & Ebright Streets
Muncie, Indiana



"BREAK-AWAY" DISASSEMBLY WITH TWO SIMPLE HAND TOOLS

EXCLUSIVE STAGE DESIGN

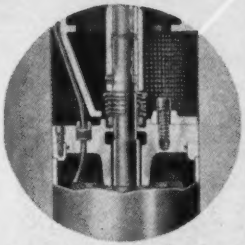
For **BIG** *HIGH PROFIT jobs!*

Rapidayton

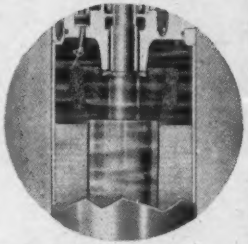
6" SUBMERSIBLES

Incorporating the same years ahead pump design as the fast-selling 4-inch Rapidayton Submersibles **—plus the world's most efficient 6-inch motor**

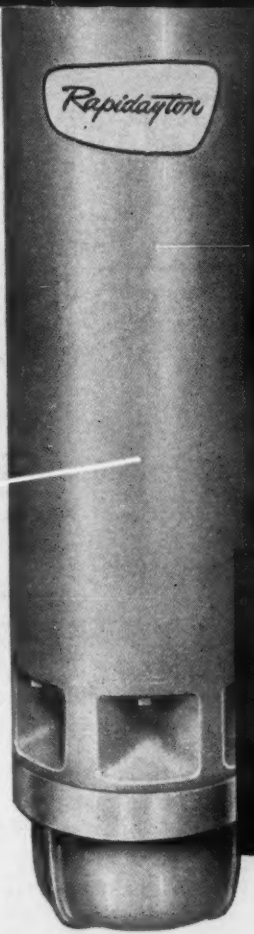
Capture the BIG, HIGH PROFIT jobs with Rapidayton 6" submersible pumps. Rapidayton 4" subs have proven their superiority in both shallow and deep wells from coast to coast. Build on this acceptance, this



PERFECT SEAL, INDIVIDUALLY ELECTRONICALLY TESTED



TAIT DESIGNED AND MADE "PLUS POWER" OIL-FILLED MOTOR



©1959 TAIT MFG. CO.

still more with the highly-profitable 6" models.

Outstanding features include "break-away" construction of pump which permits quick, easy disassembly at the well site. The oil-filled motor is 100% Tait designed and custom made to provide "plus power," higher efficiency and longer life. The exclusive design of the pump stages makes use of hydraulically-balanced nylon impellers. Ball bearings in the motor provide additional safety protection against thrust.

Available in three series: high head, high capacity, and mid-range, including single-phase models in 5 and 7½ h.p. and three-phase in 5, 7½, 10, and 15 h.p. Capacities from 30 to 150 gallons per minute and pressures to 120 lbs. For wells 0 to 800 feet. Do business with your Rapidayton wholesaler. Write today for complete information.

Rapidayton 4" Submersibles for "the heart of the market"

Hit the heart of the big volume market—4" shallow and deep wells 0 to 500 feet—with Rapidayton 2-wire and 3-wire models, ranging from ¼ through 3 h.p.

The ¼ h.p. 2-wire pump with attached cable and overload protector retails for only $169.50. Everything you need in subs from one manufacturer—Rapidayton!

Rapidayton division

The Tait Manufacturing Company, Dayton 1, Ohio

Established 1908 as The Dayton Pump and Manufacturing Co.

from the MAILBAG

This page is open to any of our readers having questions to ask relating to drilling driving pipe, dressing bits, etc. All letters will be answered promptly by experienced drillers and engineers, who are qualified to give intelligent advice on these subjects. We will publish as many letters of general interest as space will permit. Address: The Driller, South Milwaukee, Wis.

Has Trouble with Lost Circulation in Well

Dear Sirs:

I have a customer in this area who has a well on his property that was drilled by an oil company exploring the area for gas and oil. This well is cased to 212 feet with a 14-in. O.D. Casing. It is plugged at 900 feet with 36 bags of concrete. He would like to attempt to make an irrigation well out of this well.

At around 330 feet the log shows a coarse formation where they had considerable trouble with loose circulation. This stratum apparently continued down to about 540 feet. Circulation was lost between 730 feet and 860 feet also. This party was wondering if I could use some chemical to dissolve the drilling mud and let the water in and if so, what the procedure would be.

I drilled another well for them about ⅜ mile from this one. I drilled it to a depth of 895 feet. I started with a 21-in. casing and cased to the lava (42 feet). The lava continued to a depth of 185 feet. I then drilled an open hole to the bottom and set an 18-in. casing to a depth of 315 feet. The well produces 900 GPM from 260 feet.

If you could give me some information that would help in this situation it would be greatly appreciated.

D.R. Idaho

We suggest the first thing you try is to swab and surge the well at the depths from 730′ to 860′. There are chemicals offered that help dissolve drilling mud.

Other methods for controlling lost circulation have been used, such as cotton seed hulls, wheat flakes, and similar materials. We believe if you put on a good surging or swabbing action that you should be able to pull the material out of the formation without any trouble.

If this doesn't work, you might try pumping the water head down to as far as possible. You state that a well you drilled nearby produced 900 GPM at 260 feet. If you could run the pump down to, say 500 feet, it would take a pretty good plug to hold that relieving of pressure.

Seeks Advice On Driving Well

Gentlemen:

I am seeking information pertaining to the driving of a well for local household water supply at my summer home located in Pennsylvania. I have been a mechanic practically all my life, and have done almost everything except drive a well, so I finally decided to try my luck.

I am planning on driving, rather than drilling, a well which I estimate will be approximately sixty feet deep and hope for a supply of about 15 gpm.

I have been told that you may be able to provide me with some information as to procedure and other elements which may be helpful to a layman.

H.B. New York

Presumably you have in mind a drive point with a screen section in the bottom, assembled on a string of pipe, and driven into the ground with a sledge or some mechanical means.

In areas where there is coarse soil and no rock, this is the quickest and simplest method of acquiring water. Driven wells are most practical, of course, where water is found relatively close to the surface in sand and gravel deposits, and where the overburden is not too difficult to penetrate.

If the water level is 25 feet or more below the surface, it is best

to use drive pipe 2 inches or more in diameter so a jet or cylinder may be inserted and submerged to permit the pump to function.

Well points vary in diameter and length, depending on the volume of water required and local soil texture, and are constructed to withstand the shock and twisting encountered in hard driving. Where a small water supply is required, a screened well point screwed into a short length of small-diameter pipe may be hand-driven into the ground by sledges. A special device called a cap or drive head protects the top of the pipe during this driving operation. After each length of pipe is hammered into the ground, the cap is removed and additional sections are attached and driven as required. The pipe is kept full of water at all times.

For a larger volume of water, it is of course necessary to use a larger diameter well point and pipe. This requires more severe driving and it is necessary to use some mechanical means such as a block and pulley with a steel drive head and heavy drive couplings.

If the overlying formations are not porous and there will be any boulders or layers of rock encountered, it would not be advisable to attempt to drive a well point. Under such conditions, a drilled well is the most practical, and should be done by an experienced well driller who is confident to undertake such work and who has the knowledge of the ground strata.

We recommend that you consult some experienced well drilling contractor in the area where you want this well. He will be in position to advise you regarding the proper equipment and procedure.

VALLEY STEEL PRODUCTS COMPANY

Louisiana, Missouri

NEW AND USED WATER WELL CASING

ALL SIZES
ALL WTS.

LINE PIPE
IRRIGATION PIPE

GALVANIZED
BLACK

OIL WELL CASING AND TUBING

FREE QUICK DELIVERY — YOUR YARD OR JOB SITE
WATCH FOR OUR TRUCKS — THEY DELIVER IN YOUR STATE

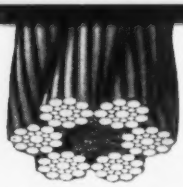
O. F. MALY
Day Phone: 449
Night Phone: 941

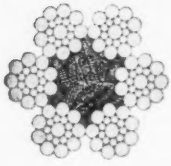
T. W. HARNESS
Day Phone: 447
Night Phone: 602

CALL COLLECT • BUY DIRECT

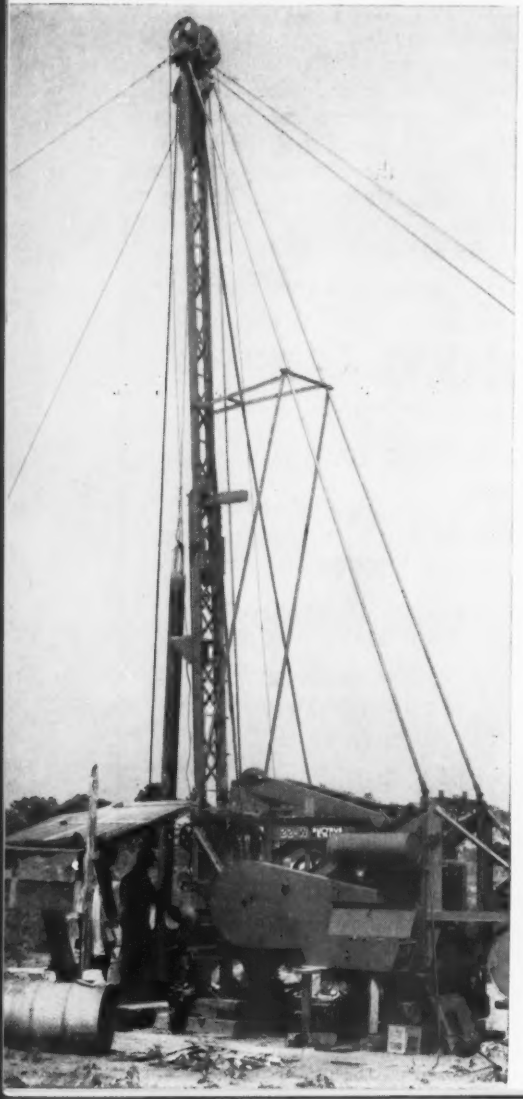
Service 24 hrs. per day for ***365 days a year***

ECONOMICAL PRICES • QUICK DELIVERY • SATISFACTORY SERVICE
WATER WELL CASING AND PIPE OUR SPECIALTY





This wire rope gives you more footage...



It's Tiger Brand, America's No. 1 Wire Rope

You need a lot of shock resistance, abrasion resistance, and flexibility in your water-well drilling lines, and you get just the right combination in American Tiger Brand Mor-Spring Lines.

Look at the cross section. Notice the size of the outside wires . . . big enough to assure long service life. Drillers have cut their wire rope costs as much as 50% with Mor-Spring lines. Ask for them next time you buy. American Steel & Wire, 614 Superior Ave., N.W., Cleveland 13, Ohio.

USS and Tiger Brand are registered trademarks

USS

American Steel & Wire Division of United States Steel

Columbia-Geneva Steel Division, San Francisco, Pacific Coast Distributors

Tennessee Coal & Iron Division, Fairfield, Ala., Southern Distributors

United States Steel Export Company, Distributors Abroad

for higher

Profits

choose

REDA Submergible PUMPS

- **Complete range of pumps for all applications—1/3 to 300 H.P.**
- **Easiest to install—no pump house; single pipe from pump to tank**
- **Lowest maintenance—lubricated for life; corrosion-resistant**
- **MORE WATER PER DOLLAR—FULLY WARRANTIED—SILENT OPERATION**

Reda Submergible Pumps are *proven* to be "The Best Pump . . . The Best Buy! *OVER 100,000 units have been installed!* Forty years of experience by the pioneer and largest manufacturer of submergible electric motors and pumps is back of every dependable Reda Submergible Pump . . . acknowledged as *leader of the field* by pump buyers everywhere! In addition, *only REDA* provides a complete cooperative advertising program, backed up by a national advertising campaign, that is directed *100%* to the submergible pump market! Find out if *you* can qualify to be a Reda dealer . . . write today for complete information!

SIGN OF QUALITY SUBMERGIBLE REDA PUMPS

REDA PUMP COMPANY

BARTLESVILLE, OKLAHOMA

World's Largest Manufacturer of Submergible Pumps for Oil, Brine, Water, Gasoline, Jet Fuel, Chemicals and LPG.

the driller and the LAW

Articles appearing under this heading are published for their general interest, and to remind readers that it is not safe to overlook the legal aspects of a water well drilling business. The articles are not intended to take the place of specific advice of counsel. For such advice, readers are urged to consult a local attorney.

Drilling Company Defeats Suit

THE PROBLEM: A contract to drill a water well evidently did not guarantee production, but, because the well failed to yield a supply and because the owner had another well drilled by another driller ten feet away which provides adequate water, the owner sued the first driller for refund of money that had been paid. (1.) Did the facts show that the first well was negligently drilled? (2.) Did the fact that the first driller had not been licensed by the state, as required by state law, prevent the driller from defending the suit?

COURT'S ANSWER: No! (Milum V. Herz Brothers Water Well Drilling & Supply Co., 329 Pac. 2d 1068, decided by the Nevada Supreme Court, October 1, 1958).

The first driller completed a well to 226 feet at an agreed price of $6.50 per foot and $1,324.67 was paid. Water was produced for a day but then there was only a trickle. The first and others unsuccessfully attempted to establish a flow. The owners then had a new well drilled by another driller just ten feet away with satisfactory results.

In upholding a trial court's judgment dismissing the suit, the Supreme Court decided:

There was a conflict in the evidence as to whether the pipe in the first well had been properly perforated, but the owners did not sustain the burden of proving by a preponderance of evidence that a workmanlike job had not been performed. The mere fact that the second well was a success did not constitute such evidence.

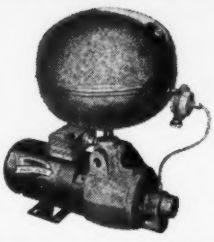
The court intimated that if the first driller (who appears to have been unlicensed) had not been paid for performance under the contract, suit for payment could not have maintained because a Nevada law specifies that a contractor cannot sue to collect pay for work without proving that he was licensed at the time the work was performed. However, the court concluded that the law could not be read as meaning that an unlicensed contractor cannot defend a suit to compel him to refund payment received.

A. L. H. Street

"Ready to call it quits?"

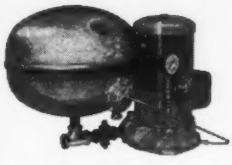
There's a BERKELEY PUMP to fit each of your customer's needs!

WATER SYSTEMS



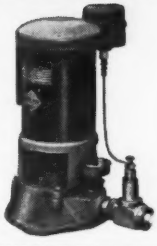
WATER-MATE SYSTEMS: Budget Horizontal convertible jet pump. Cap. to 1500 GPH. Depths to 100'. ⅓ to 1 HP.

Ask for Bulletin 1055



BANTAM-JET SYSTEMS: Budget vertical deepwell jet pump. Capacities to 1800 GPH. Depths to 140'. ⅓ to 1½ HP.

Ask for Bulletin 1103



VERTICAL JETS: Deliver up to 1500 GPH from 150'. Up to 5000 GPH maximum. ⅓ to 5 HP models.

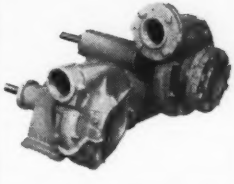
Ask for Bulletin 1105

SUBMERSIBLES

BERKELEY SUBMERSIBLES: 4" or larger sizes. Efficient deep-well pumping units. Up to 4500 GPM Depths to 1000'.

Ask for Submersible data.

SPRINKLER PUMPS



BERKELEY SPRINKLER PUMPS: Motor, engine or belt drive. Cap. to 4000 GPM. Heads to 180 PSI. 1 to 200 HP.

Ask for Sprinkler Pump Data.

TURBINES

BERKELEY TURBINES: Wide range of sizes—4" to 24" models. Capacities to 10,000 GPM. 1½ to 250 HP.

Ask for Turbine Data.

No two customers are alike in their requirements. Full-line Berkeley dealers sell more because they sell a complete line. Now is the time for you to become a Berkeley dealer. Write today for details and discounts.

BERKELEY PUMP COMPANY

P. O. Box 7, Station A, Berkeley, California

FACTORIES IN:

BERKELEY, CALIF.; ATLANTA, GA.; AMARILLO, TEXAS; GRAND ISLAND, NEBRASKA.

Berkeley PUMPS & WATER SYSTEMS

SELL THE COMPLETE LINE — SELL BERKELEY

BITS *from the wit sharpener*

The driller felt bad and went to a doctor for the first time in his life. When he presented himself in his Adam's suit the doctor let out a yell:

"Why, your navel is 10 centimeters lower than normal. Was it always that way?"

"No."

"Is it because of something connected with your work?"

"It's not from anything connected with my work. Perhaps it's because I've been flag bearer for my lodge for 12 years."

The harried coach pleaded with the professor who had flunked his prize tackle to give the boy another chance. Finally the professor agreed and did give the boy a special make-up exam.

The next day the coach again anxiously queried the professor. "How did Jones do?"

"I'm sorry," said the professor. "It's hopeless. Look at this . . . 7 x 5 = 33."

"But gosh, prof," said the coach, "give him a break. He only missed it by one."

The woman and her husband entered the dentist's office and she told him:

"I want a tooth out and I don't want gas because I'm in a dreadful hurry. Just pull the tooth as quickly as possible so I can be on my way."

The dentist was impressed and said:

"You're certainly a brave woman. Which tooth is it?"

The woman turned to her husband and said:

"Show the dentist which tooth, dear."

A tomcat and a tabby were doing some passionate courting on a back fence at the witching hour of midnight. The tom leaned over and screamed with all the pent-up passion buried within him:

"I'd die for you!"

The tabby gazed at him through lowered eyelids and purred her reply:

"How many times?"

A psychiatrist met his old friend, Sam, and asked him how things were going.

"Not so good," Sam replied. "My brother is very sick."

"Your brother isn't sick," contradicted the psychiatrist. "He only thinks he's sick. Remember that, he only thinks he's sick."

Two months later they met again and the doctor asked:

"How's your brother doing now?"

"Worse," Sam groaned. "He thinks he's dead."

A man walked into a coffee shop during a busy lunch hour rush, ordered a cup of coffee, gulped it down, left 10 cents on the counter and walked out.

Quickly the waitress scooped up the coin, put it in her pocket and turned to the next customer—only to catch the cold eye of the owner staring at her.

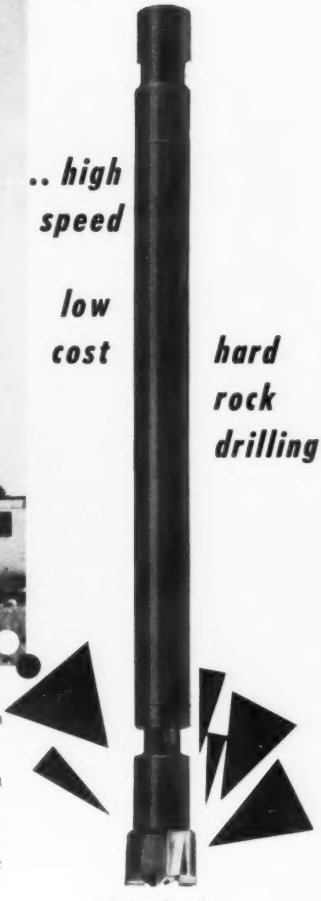
She hesitated a moment, then shook her head sadly.

"What a screwball!" she confided. "Leaves a 10-cent tip—then walks out without paying."

.. high speed

low cost

hard rock drilling



The Mission HAMMERDRIL® is a "bottom hole," pneumatic impact tool, rugged enough to drill through the hardest of rock formations *day in and day out.* The HAMMERDRIL is designed and built for long life, low upkeep. There are two moving parts in the high pressure, and only three moving parts in the low pressure tool. All impact parts are of heat treated high alloy steel. All moving parts are "Missionized"®—a special surface treatment—to reduce corrosion, friction, wear, and galling.

Eight years of development and testing by Mission have gone into the HAMMERDRIL, to make it reliable and economical in use. In addition, the HAMMERDRIL can be used on your present standard rotary rig with suitable air compressor capacity.

The Mission HAMMERDRIL is sold and serviced throughout the United States. Write to Mission for more information and for what HAMMERDRIL can do for you—faster drilling, lower cost per foot.

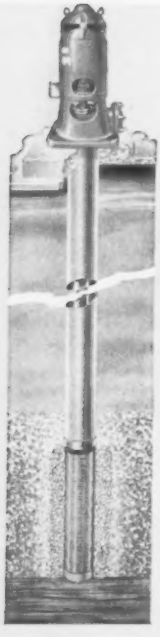
Patents Issued
And Pending

Nothing but the finest will bear the name of

MISSION MANUFACTURING CO.

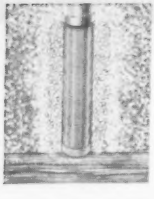
MISSION MANUFACTURING CO., P. O. Box 4209, Houston, Texas • Cable Address—"Missco" • Export Office: 30 Rockefeller Plaza, New York. In The United Kingdom: MISSION MANUFACTURING CO., LTD., 17 Hanover Square, London, W., 1 England • Cable Address—"Missoman"

PISTONS • PISTON RODS • SLIPS
GLAND PACKINGS • LINERS
LINER PACKING • PUMP VALVES AND SEATS
SWABS • VALVES • HAMMERDRILS
CENTRIFUGAL PUMPS

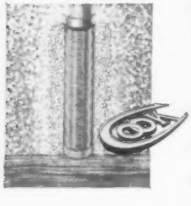


Why take a chance? Inferior, inexpensive strainers can only mean costly, time consuming replacement. When you install a Cook Well Strainer you are guaranteed years of superior service attested by thousands of installations that are still producing water at their original G.P.M. The exclusive design of Cook Strainers permits the most direct and unobstructed water way from the water bearing formation into the well. The V-shaped slot allows for maximum development which is accomplished by the removal of silt, alluvium, clay and fine sand from around the outside of the strainer. This provides a natural filter of coarser and more uniform sand and gravel.

sustained performance
YEAR after YEAR with
a strainer by COOK



Investigate all the advantages of Cook Strainers. They are available in Red Brass, Silicone Bronze, Armco Iron, or Stainless Steel; in as many different slot sizes as required. Eight to twenty-four hours delivery often possible by telephoning Cincinnati HUmboldt 1-8800.



COOK WELL STRAINER CO.
6330 Glenway Avenue • Cincinnati 11, Ohio
WORLD'S LEADING NAME IN WELL STRAINERS

Get more footage at lower cost with

SPANG

ALLOY-STEEL

Weldless Jars

. . . forged from ONE PIECE of Alloy Steel

NO WELDS TO BREAK . . .

Each SPANG WELDLESS JAR is forged from a single piece of selected alloy steel and is scientifically heat-treated and tempered to obtain proper hardness and toughness in the rein sections for maximum strength and wear resistance in the most severe drilling service.

The joints, heat-treated and precision machined, are stronger and more durable, assuring fewer fishing jobs. Records over the years show up to four times more footage with SPANG Alloy-Steel WELDLESS JARS.

For further information on weldless jars, and for FREE CATALOG of other SPANG cable tools, contact your nearest Dealer or write direct to:

The HIGHER STANDARD

SPANG & COMPANY

Dept. M-2 • BUTLER, PENNSYLVANIA

For over 60 years Manufacturers of Spang Weldless Jars and a Complete Line of Cable System Drilling and Fishing Tools for Oil and Gas Wells, Water Wells, Prospect Drilling and Shot Blast Holes.

Holman . . .

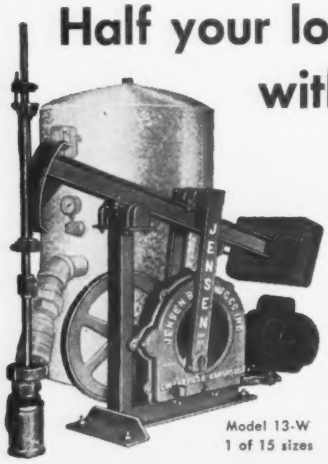
(Continued from page 21)

cies are finding more and more that the churn drill is an excellent sampling instrument. Foundation explorations were made by the Holmans for many well-known Pacific Northwest Corps of Engineers projects: dams like Albeni Falls and Eagle Gorge. Geiger and Fairchild Air Force Bases near Spokane use domestic water developed in large part by the Holmans. In fact, one of the Holmans' best wells is a 3,000-gpm hole which was drilled near old Fort Wright under a Corps of Engineers contract for Fairchild AFB. Some of these jobs ran into unforeseen conditions, and in every case, said the Holmans, government engineers were quick to make intelligent, fair contract adjustments.

More than half the secret of getting along on government drilling contracts, say the Holmans, is to approach government contracts in a businesslike manner, to bid realistically, and above all to have good, dependable equipment. As a matter of fact, this is doubly important for the Holmans, because much of their work is in widely scattered and remote areas, making repair parts difficult to get. By approaching this from a standpoint of having breakdown-free equipment, the Holmans have solved most of that problem before it had a chance to get started. And, of course, it makes a tremendously favorable impression on not only government officials but on any well customer if a driller moves in with a good, dependable machine in good condition.

"It makes your job easier from the start," explained Arnold Holman, "and

Half your load gets a FREE ride with a JENSEN JACK



Model 13-W
1 of 15 sizes

JENSEN AUTOMATIC WATER SYSTEMS *save* your customers money when they need it most . . . in normal day-to-day operations.

Take H.P. Most pumping units must lift the entire column of water in the pipe. But a JENSEN JACK only has to lift about half the column of water because the other half is *counterbalanced!*

That's why a JENSEN JACK will pump more water with *less* electric power — usually one-half to one-third LESS!

Yes, it pays to install JENSEN JACKS. 15 sizes in all, one for every home, ranch or farm water well problem.

JENSEN WATER SYSTEMS

Made by JENSEN BROS. MFG. CO., INC., Coffeyville, Kansas

1 W... PROFITS $¢¢

I actually believe it helps to speed up your collection. Customers just don't hold out very long on a driller who operates in a businesslike way with equipment that's well kept up or new."

Most government work is in the 10 and 12-in. diameter range, but sometimes it goes to bigger-diameter work. For example, a Bucyrus-Erie 28-L the firm owns had been busy for three months drilling an 18-in. diameter well at Geiger Air Force Base. The well is only 550 feet deep, but it will total about $20,000 by the time it's finished. Jobs like this help to swell the firm's volume of work, even though the footage is not exceptionally high.

About 25% of Holman's domestic business consists chiefly of fill-in jobs near the Spokane headquarters area. Most domestic well drilling calls for 6 or 8-in. diameter casing, with average depths of about 140 feet. One of the unusual features of Holman's domestic well drilling business in the Spokane area is that it occurs in one of the best underground water areas in the United States. The entire basin around Spokane Valley, extending all the way to Coeur d'Alene, Idaho, and north from there receives a constantly replenished underground reservoir which geologists say comes from Lake Pend O'Reille. While the formation is gravel and boulders, and some of the boulders are tough to drill, the water level is absolutely dependable. In the Spokane area, it will be found about 110 feet below the ground surface, going up to 300 feet as one gets closer to the mountains. The water is some of the finest in the United States.

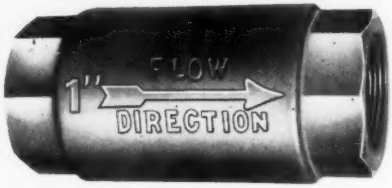
The Holmans are very well-

(Continued on page 42)

White Flomatic Valves

If you want your pumps to produce with maximum efficiency and a minimum of service calls, be sure to use Flomatic valves. They're precision made of high quality bronze, with twenty years' experience behind them.

If your jobber can't supply you, write us.



Foot Valve
WHITE FLOMATIC
Check Valve

WHITE FLOMATIC CORPORATION Hoosick Falls, New York

1-W keeps busy Hollow Rodding PROFITS $$$

Here's a rig that's built for speed and versatility. The 1-W hollow rods 2 to 3-in. dia. holes to maximum depths of 350 to 250 feet respectively . . . drives down casing simultaneously, cuts drilling costs per foot. Cable costs are low, too, since the line does not enter the hole.

You'll profit from the 1-W's fast line speeds that makes quick work of running down a string of rods. As the hole is deepened, drill rods are added quickly.

Changeovers from hollow rod to jetting, cable tool, or hydraulic-drive rotary methods are fast, easy. Drillers everywhere are talking about this simple, compact "combination" rig with its hydraulic spudding action and 4-way drilling.

119W58C

BUCYRUS ERIE

BUCYRUS-ERIE COMPANY
DRILL DIVISION,
Box 324
U.S. Highway 40, West
Richmond, Indiana

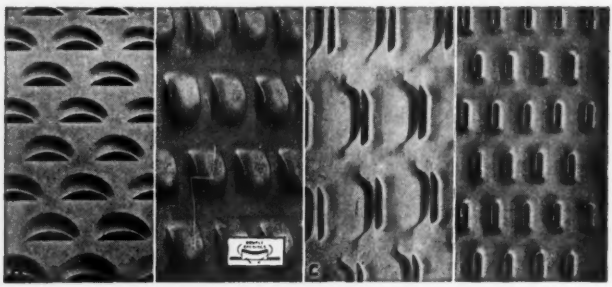
Write today for *new*, illustrated literature . . . Bulletin 1-W-2. Check the features that help make the 1-W the small well performance leader. Then visit your nearby Bucyrus-Erie distributor and obtain full particulars.

FIRST with the FINEST in Water Well Drills

STAINLESS STEEL

WELL CASING

Corrosion is stopped by welded stainless steel casing. If acid or alkaline soil conditions present a problem... then stainless steel well casing is your permanent solution.



4 Perforation Styles

A. LOUVRE. Louvre down keeps fine sand out. Very popular for gravel packed rotary drilled wells.

B. DOUBLE LOUVRE. Up to 50% more perforated area. Up to 8 ga. thickness, min. diam., 10". Very strong.

C. TWIN FLOW. Water enters from opposite sides of perforations 1/2" to 1" long, 1/16" to 1/4" deep.

D. STANDARD. Popular for fine sand at moderate depth. 3' to 21' lengths, as desired.

4 Field Joints

PLAIN END — For welding... popular for modern, quick assembly of black welded casing.

PLAIN END — With butt strap for fast field welding. Line-up holes insure true joining.

LAPPED JOINT — For riveting . . . popular for galvanized, riveted casing. Tapered ends, gang punched.

LAPPED JOINT — For bolting... 5/16" T-head bolts can be installed from outside.

Write for **FREE** well casing catalog.

THOMPSON PIPE & STEEL COMPANY

3007 Larimer Street • Denver 1, Colorado • TAbor 5-1241

Name..... Address.....

City..... State.....

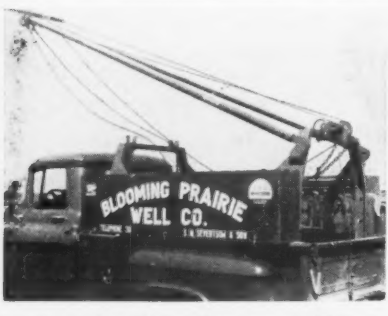
Holman . . .

(Continued from page 39)

equipped to handle their current $150,000 annual drilling volume. Newest machines on the list are the Bucyrus-Erie 60-L and the 22-W which were picked up in South Milwaukee last summer. There is also an older, 1955 22-W, and a 28-L, which has been owned for nearly six years. There are also two Star 55's and a Boyles BBS diamond drill, which is sometimes used for exploration work. The firm even owns a venerable Bucyrus-Armstrong rig, which is now about ready for retirement.

One of the most valuable pieces of equipment the company owns, according to the senior Holman, is the new Peterbilt truck and low-bed trailer. It has saved the firm a great deal of money in moving the drills around on long hauls. For example, the Alaska drilling job would have cost about $3,000 per rig, plus another $3,000 for pipe and tools if the shipment had been made by boat from Seattle to Palmer, and from there by railroad to Fairbanks. As it was, everything was taken in one load, and total moving expense to Alaska and back totaled only $4,500. Similar economies are possible on moves in the four-state Pacific Northwest area.

At headquarters there's a 40 x 65-ft. tin shop building, where equipment can be worked on during slack periods. A general policy is followed of maintaining the machines in new or nearly new condition in the Spokane area, and of doing only the necessary repair work when they are out on out-of-state assignments. When they return they are put back in topnotch operating shape.



VON RUDEN **Hydra-Flex**
PORTABLE DERRICK

Hydra-Flex Hydraulic Motor drives heavy-duty, clutch-equipped 3 ton winch with hydraulic-smooth engagement and release. Pull varies with boom angle . . . ton and a half at 60 degree boom elevation. Boom easily raised or lowered for inside tower or inside building work, hydraulically handled for transport or any boom position.

Write for complete information

HYDRA-FLEX, INC. CLAREMONT 1, MINNESOTA

Firm Well Organized

The Holmans have an organization as excellent as the equipment fleet. Either the senior Holman or Arnold stay in the Spokane area to run things at headquarters while the other is away. Arnold stayed at home while his father ran the Alaska job. When the work in Montana was active, Arnold ran that while his father stayed home. The company's drillers also alternate, so that each man can be at home as much as possible.

The drill rigs are operated conventionally, and with the exception of a few hard forms of basalt and large boulders, drilling is not too difficult. One of the toughest assignments the Holmans had was a fishing job near Worley, Wash., which lasted a month. But fishing jobs are not too frequent. By having the drillers use care and operating on a steady basis rather than

in spurts, fishing jobs are largely eliminated.

Small-diameter bits are dressed by forge, and sometimes large-diameter bits are forged back out by a large steam hammer in a Spokane machine shop. For the most part, however, large-diameter bits are built up with Lincoln BU-90 electric welding rod and then ground back to proper gauge the sharpness. All of the Alaska bit-sharpening work was done in this manner.

Have Capable Employees

While competent drilling help is of course as hard to find in the Spokane area as in any area of the nation, the Holmans have slowly built up a roster of good men which reaches a payroll peak of about 15 at busy seasons in the year. The men are encouraged in every way to do a good drilling job and stick with the company. Wages paid them rank with what industry pays throughout the area.

The Holmans have come a long way in just over ten years. The senior Holman has been in the drilling business since 1929 when he first started in Montana as a tool dresser, driller and production superintendent for oil companies. In 1946 he moved into Spokane and started the present drilling business from scratch, in company with another partner. When Arnold got out of the U.S. Navy in 1947, he bought out his father's partner and since has operated as a co-owner of the business. The spread has grown from one small drill rig in 1946 to the present operation, which promises to become even bigger in the years ahead, particularly if the government work continues to hold.

Now! NEW ISSUE TRUCKS

Bring You HIGH SPEED In 6x6's!

LOW, LOW PRICES! GUARANTEED! TROUBLE-FREE! IN CURRENT OPERATION BY ARMY AND NATIONAL GUARD UNITS!

- *Complete Parts Stock!*
- *Immediate Delivery!*

GMC—MACK—REO "EAGER BEAVER"

AT LAST—High Speed combined with power, outstanding performance, rugged get-up-and-go—bring you everything you've been looking for in a truck!

And what a selection! Whatever your job, here's the truck for you. **The rough and ready Mack! The powerful, rugged GMC! The outstanding Reo "Eager Beaver!"** Each model the latest, most advanced truck engineering available today—at prices so low it's hard to believe. All with steel cab kits.

Contact us, too, for the complete line of unused army trucks!

For specifications, prices, delivery—write, wire or phone collect

MEMPHIS EQUIPMENT Company

ARMY TRUCKS • PARTS • CONSTRUCTION EQUIPMENT

MAIN OFFICE
766 South Third Street
Memphis, Tennessee

ALLEGHENY BRANCH
821 Lincoln Way West
Chambersburg, Pennsylvania

IN '59
THE HOTTEST BRAND

CLAYTON MARK

Hold everything, pardner, until you've checked with CLAYTON MARK's local distributor and learned about the new '59 promotions that's increasing drillers' sales and PROFITS! Yessiree . . . the CM brand is known far and wide as the "hottest" line you can ever latch onto. They have the most advanced line of pumps. They have the "greatest name in water" . . . and now they've got the PROMOTIONS —wrapped up in a big '59 Promotion package.

It's all coming your way, so look for it at your CM Distributor or write CM direct for details.

CLAYTON MARK & COMPANY

1900 Dempster Avenue • Evanston, Illinois

News . . .

(Continued from page 25)

high capacity, and mid-range. Capacities from 30 to 150 gpm and pressures up to 120 lbs. can be obtained. Water levels from 0 to 800 feet can be reached.

The 6-in. line is an addition to a complete 4-in. Rapidayton line, which includes both 2 and 3-wire models for wells 0 to 500 feet in depth.

All Rapidayton submersibles are 100% Tait-designed and made, including motors and all component parts. Manufacturing is done in Tait's modern submersible pump plant at Gettysburg, Ohio.

Fort Wayne Area Drillers Visit Bucyrus-Erie Drill Plant

Approximately 50 members of the Local #2, Fort Wayne, Indiana Well Drilling Contractors' Association, Inc., visited the Richmond Drill Division plant of Bucyrus-Erie Co. on Dec. 3, 1958. The visit was jointly sponsored by A. L. Cox & Co., Inc., Mishawaka, Ind., Bucyrus-Erie drill distributor, and by the Bucyrus-Erie Drill Division.

The guests were taken through the new manufacturing facility to observe the production of water well drills and then visited the parts department to see the new parts service operation. After lunch in the plant cafeteria, the association held its monthly meeting to elect new officers for 1959. The meeting was conducted by the retiring president, Ike Bojrab. The new officers elected were:

President—Roy Aker, Angola, Ind.
Vice-President—Jay Bonar, Albion, Ind.
Secretary—Art Bonar, Albion, Ind.
Treasurer—Melvin Hahn, Nappanee, Ind.
Local Director—Pete Bojrab, Ft. Wayne, Ind.
State Director—Jake Kell, Huntertown, Ind.

After the meeting, the guests ob-

(Continued on page 50)

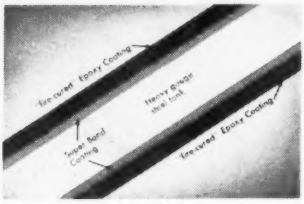
Despite rainy weather and muddy grounds, a sizable crowd of drillers ventured out of doors to watch this Bucyrus-Erie 1-W drilling hole by the rotary method.

New...with a BIG Difference

Myers "Fire-cured" Epoxy tanks are best. Here's why:

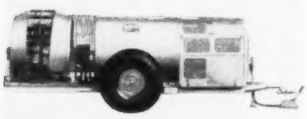
Fits any Installation

All Myers Epoxy tanks feature universal tapping. One tank fits all pump installations, regardless of type, make or size.



Double Protected

High bake, tough epoxy coatings are superbonded to heavy gauge steel . . . inside and outside the tank. Tanks are double-protected against premature "rusting out" due to damp installation sites and highly corrosive water. Myers Epoxy tanks look better . . . last years longer.



Time-tested

Epoxy is the same tough durable coating that protects Myers power sprayer tanks from damage by highly corrosive spray chemicals. Years of actual field experience have proved the superior protective quality of epoxy coating.

Here's a profit-making extra that adds real punch and customer appeal to your 1959 profit-program. Contact your Myers distributor today for full details and prices or write:

Myers

The F. E. Myers & Bro. Co.
ASHLAND, OHIO KITCHENER, ONTARIO

Built with the dependable perfection you expect from Myers.

BARGAIN *counter*

All advertising in this section is payable in advance. Enclose your check or money order with copy. Rate: $1.00 per line. Minimum charge $4.00. No discounts; no commissions. Count your own copy to avoid delay. The average line contains 28 characters (20 characters if all capital letters are used). Count spaces and punctuation as one character each. Allow 10 characters for box number if blind advertisement is desired. Closing date — 5th of preceding month. Example — January issue closes December 5th. Be sure to address separate inquiries to each advertiser by using the correct box numbers. Mail Box inquiries care of THE DRILLER, South Milwaukee, Wis.

DRILLS FOR SALE

Stone Model 31, mounted on '46 Chev truck; machine equipped with tool guide, blower, starter and lines; powered by Hercules 4-cyl. engine; contact: Bedford Artesian Well Co., Bedford, N. H. Phone: Greenleaf 2-4060.

29-T Bucyrus-Erie, gasoline powered, purchased new in 1950. Complete with wire lines and the following tools: 2—stems 6½ x 20′; 2—swivel sockets (open side); 8—bits, 9″; 1—Horn socket (new); 1—jar bumper. All equipment in good condition and reasonably priced at $3,000. M. S. Beardslee. Cozy Lake Road, Oak Ridge, N. J., Phone: OX 7-4346.

33-W Bucyrus-Erie, mounted on 1947 Chev. truck. Both in good condition. Reasonably priced with or without tools & lines. I. N. Petersheim & Son, Morgantown, Pa. Phone: MOrgantown 6-4641.

24-L Bucyrus-Erie, mounted on 5-ton Mack truck; machine equipped with 48′ derrick power raised, casing reel, spooling device, starting equipment, tool guide, blower, catheads and powered by Buda HP-326 engine; with lines and 6″ tools. Excellent condition throughout. Price: $6,000. Clearwater Artesian Well Co., Royce Rd., Marlboro, Mass. Phone: 465.

DRILLS FOR SALE

1—1958 model 1-W Bucyrus-Erie drill. This machine is complete with all rotary attachments, including three-stage Moyno pump, 100 ft. 2⅜″ drill pipe, hoses, circulating tank, line, etc. Machine is mounted on GMC 6 x 6 Army truck which has been repainted and is in excellent condition.

1—1957 Bucyrus-Erie 1-W drill, complete with rotary attachments including three-stage Moyno pump, rotary hoses, mud tank, 200 ft. 2⅜″ drill pipe, bits, lines and weights. Machine mounted on 1952 Dodge truck.

1—1958 model 20-W drill, equipped with casing reel, spooling device, electric starting, tool guide. No truck or tools.

1—1953 model 20-W drill, mounted on KB-6 International truck. Machine equipped with rope socket, 4″ x 14′ stem, one—5⅝″ bit, and one—4″ x 14′ bailer.

1—model 6 Ideco on 1949 KB-5 International truck.

1—Model 71 Star, mounted on KB-6 International truck. Machine equipped with practically new Continental engine with electric starting and clutch. Machine steamed and repainted.

1—1954 model 40 Cyclone drill. Machine has 32 ft., one-piece derrick (power-raised). Mounted on International 1½ ton truck.

1—1954 model 60-L Bucyrus-Erie drill. Machine powered by HP-326 Buda engine. Trailer-mounted and equipped with casing tackle strut.

1—1952 model 36-L Bucyrus-Erie drill. Machine completely rebuilt and repainted. This drill equipped with tandem axle, tool crane and newly rebuilt 145 GK Waukesha engine.

1—Model 282 Star. Machine trailer-mounted, has reverse clutch, 48-ft., power-raised derrick, and 6-cylinder Ford Industrial engine.

Buckeye Supply Co., Zanesville, Ohio.

55 Speedstar, purchased new in 1954. Mounted on a K-5 International truck. Drill equipped with tool guide, catheads and power derrick hoist. Complete with tools and lines for drilling 6″ diameter wells. $3,500. C. Richardson & Son, Greenville, N.Y. Phone: 5-4159.

DRILLS FOR SALE

22-W Bucyrus-Erie #71250 mounted on truck; equipped with casing reel, tool guide, spooling device, blower, power derrick hoist, rubber cushion sheaves & steel catwalks; with lines and 6″ tools. Good condition. Price: $3,800.

Loomis K-4 mounted on White truck, equipped with tool guide, casing reel, blower, starting equipment, power derrick hoist and 4-speed transmission; with lines and 6″ tools.

Contact: Myron L. Beal, 27 South St., Bethel, Conn. Phone: PIoneer 8-7822.

Bucyrus-Erie 29-T Blast Hole Drill, Purchased 1953, only 3,900 hours, hydraulic jack leveling, special bull reel for 1,100 ft. cable, jar bumper, bailer, 4 bits 6″ to 7⅞″, many extras. For complete list, write: White's Uvalde Mines, Box 499, San Antonio, Texas.

1 — 22-W Bucyrus-Erie — semi-trailer-mounted — has 36′ derrick — casing hoist — cat heads—power derrick hoist. This machine is powered by a Buda motor and both the machine and motor are in excellent condition, recently repainted.

1—22-W Bucyrus-Erie—approximately, 4 years old—mounted on a K6 International truck—equipped with 1,000′ of good ⅝″ drill cable and ⅜″ sand line. This machine is in first class condition and ready to go to work. Motor recently overhauled.

1 — 33-W Bucyrus-Erie — mounted on cab-over Ford truck—machine is powered with an Allis-Chalmers motor which is in good condition. Truck and machine have been recently painted.

1 — 21-W Bucyrus-Erie — equipped with cat heads—machine powered by International motor. This machine is in first class condition —is mounted on Chevrolet truck.

All these machines are equipped with cable and sand line but there are no drilling tools with them. We have good prices on these machines. For additional information write or call Wilson & Beemer Supply Co. at Albert Lea, Minn., phone number 6412 or Wilson & Beemer Supply, Inc. at Marshalltown, Iowa, phone number 5724.

DRILLS FOR SALE

21-W in good condition powered by a Wisconsin motor, recently overhauled. Machine is mounted on a 1947 cab-over-engine Ford truck. Price, less cable and tools, $1,600. Lloyd Strait, Sanborn, Iowa.

71 Speedstar, mounted on a good Reo T-22 truck. Drill equipped with TF-226, 6-cylinder Continental power unit, 48′ derrick with power hoist, tool guide and blower.

33-W Bucyrus-Erie, mounted on a good GMC cab-over-engine truck. Drill equipped with good U-4 Intern'l. power unit, 40′ derrick with power hoist, tool guide and blower.

33-W, less truck equipped with U-4 Intern'l. power unit, 40′ derrick with power hoist, tool guide and blower.

All drills in good condition and priced very reasonably with or without tools and lines for drilling 6″ diameter wells. J. A. Feeley & Sons, Highgate Center, Vt. Phone: UNion 8-2438.

Bucyrus-Erie 20-W, mounted on 1948 Chevrolet truck. Has 36-ft. telescopic derrick, spooling device, casing reel, 500′ new ⅝″ drilling cable. 600′ of ⅜″ sand line. Will sell with or without tools. Marvin Boeck, Iron Ridge, Wis. Phone: Mayville 792-J.

20-W Bucyrus-Erie, new in 1955. Mounted on 1½-ton Chev. truck. Machine equipped with 36′ telescoping derrick, power raised, tool guide and starter. Complete tools and lines for 6″ wells. Price: $4,500. M & M Drilling Co., Millis, Mass. Phone: FRontier 6-5162.

DRILLS FOR SALE

50 Keystone, '46 model in good condition, on '50 GMC with 2-speed axle, good rubber all around. Machine has power derrick hoist, tool guide, 750 ft. of practically new ¾″ drill line, 600 ft. of sand line, 2 stems, 6 and 8″ bits, 2 bailers, wrenches, jars, drive clamps, 3″ test pump, jack and blocking. Machine is complete and ready for operation. Phone or write Mrs. Lillian Ackerson, 77 MacDonald Dr., Wayne, N. J. MO 8-0583.

Diesel-powered 60-L drill, mounted on M800 truck. Drill four years old, in excellent condition; will sell complete with tools to 18″ or trade on 1500 Failing drill. Phone Ch. 32435 or write J. Miskulin, 3620 Burnsland Rd., Calgary, Alberta, Canada.

21-W Bucyrus-Erie, mounted on good truck and equipped with cable but no tools. Price $1,800.00. For more information write or call Kenneth Mersch. Mersch Well Co., Cedar Rapids, Iowa.

WELL BUSINESS FOR SALE

Complete irrigation and domestic well business. Large jack-knife rotary drilling rig. Shop-made all-steel spudder. Pump-pulling and cleanout rig, diesel developing motor, test pump equipment. Will sacrifice all for $12,500.00, or sell ½ interest to non-profane Christian man for $7,500.00 cash. W. V. Block, Box 1581, Plainview, Texas.

WHEN

WRITING ADVERTISERS

PLEASE SAY YOU

SAW IT IN

THE DRILLER

WELL BUSINESS FOR SALE

Drilling and pump business, located near large city in southwest Michigan. Two trucks, two drills, tools for wells two-in. to six-in. inclusive. Distributorship for two allied lines. Reason for selling, age. Box No. 747 c/o The Driller, South Milwaukee, Wis.

MISCELLANEOUS FOR SALE

22-W—Two new, unused I.H.C. U-164, 4-cylinder 3¼ x 4¼″ closed gasoline power units.

48-L—Two new, unused Waukesha 6 WAKU, 6 cylinder 6¼ x 6½″ natural gas-gasoline power units.

1-W—One rebuilt I.H.C. U-1, 4-cylinder, 2⅜ x 2¾″ closed gasoline power unit. Never operated after rebuild.

Above engines offered as is, f.o.b. South Milwaukee, Wis., subject to prior disposition. Will sacrifice for quick sale.

J. E. Smart, Bucyrus-Erie Co., South Milwaukee, Wis. Phone: SO. 2-0900.

1—25″ Lodge & Shipley Oil Country Lathe with 8⅞″ Hollow Spindle, 120″ between centers with all equipment for turning joints, good as new $16,000 OR

1—18″ x 15″ bed 7⅛″ Hollow Spindle Hydratrol Lathe with all equipment for turning joints $11,000.

1—NEW 20-W #116513, complete starter, spooling device, casing reel, fan blower, mounted on 1948 Chevrolet truck.

1—33-W #11692, Allis-Chalmers engine, fan blower, mounted on 1947 International truck.

1—20-W #113303, spooling device, fan blower, mounted on 1945 Chevrolet truck. L. L. Martin, Hickory Well Supply Co., Inc., P. O. Box 602, Hickory, N. C.

New and used pipe and casing. Tom's Well Driller Supplies, 933 Fern Ave., Reading, Pa. Phone: SPruce 7-6331.

EQUIPMENT WANTED

1—#6 MZA Waukesha Engine, complete with clutch as used in 28-L rigs. Advise age, price, condition, approximate hours run. Box No. 746 The Driller.

News . . .

(Continued from page 46)

served a demonstration of a model 1-W drill, drilling by the rotary method in the test area at the rear of the drill plant.

Jensen Introduces New Water Well Jack

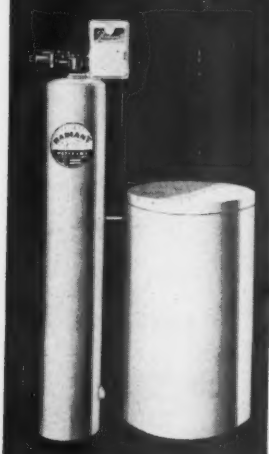
A small, compact, completely counterbalanced water well jack, the Jensen 11-W, has recently been introduced by the Jensen Bros. Mfg. Co., Inc., of Coffeyville, Kan.

The 11-W is compact and quite small, yet it actually pumps more water with less electric power, according to Jensen. It is especially recommended for shallow wells, to a maximum depth of 190 feet.

The 11-W, smallest Jensen Jack ever offered, has fewer working parts than any other rotary balanced jack on the market, according to Jensen. All wear points are self-lubricated.

For further information on the new jack, write Jensen Bros. Mfg. Co., Inc., Box 4777-H, Department TD, Coffeyville, Kan.

The *Radiant* FULLY AUTOMATIC
WATER SOFTENER



"Set it and Forget it"

All the soft water you want, year in and year out. The Radiant Electric Calendar Clock "takes over" fully and completely, automatically regenerates and then returns to service.

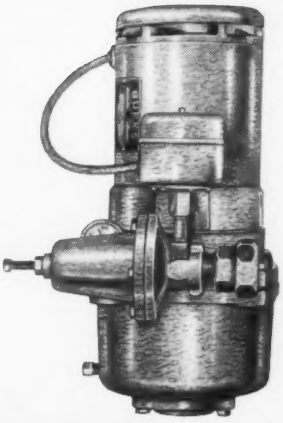
The TOWN and COUNTRY
" truly automatic."

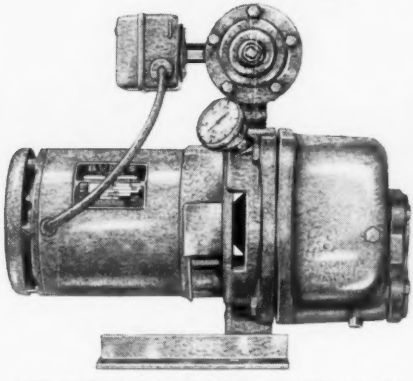
- Polyethylene Salt Storage Tank—bids goodby to corrosion and rust
- Heavy gauge steel Mineral Tank—hot dip galvanized throughout—baked, gleaming, long lasting finish
- 200 Lb. Salt Storage Tank
- New Turbo-action Regeneration
- Quality constructed—Easily installed, just plug into any 110 volt outlet

Write for Literature

RADIANT
UTILITIES CORP.
8817 18th Ave., Brooklyn 14, N. Y.

A NEW CONCEPT IN MULTI-STAGE PUMPS





FOR HORIZONTAL OR VERTICAL INSTALLATION

It's new . . . all new . . . in design, construction and installation . . . and, it's exclusively BURKS—The "HV" Series Multi-Stage Centrifugal—a proud example of BURKS new idea in "consumer-concept" engineering. Now you can have the advantage of greater capacities at higher pressures from deeper settings—with one compact unit that incorporates such outstanding features as—horizontal or vertical installation without mechanical change, compression type connections that eliminate pipe threading and expensive fittings, and a host of others that save time and money. The new "HV" Series Multi-Stage pump is ideal for water systems—shallow or deep well, booster service and applications that require higher than normal pressures; and capacities range all the way up to a tremendous 2310 gph. Rush us the coupon for full details on this new concept in multi-stage pumps. Cash in on this new sales-builder today.

Go and Grow with Burks

Distributors—Dealers: BURKS is expanding—and has openings in some profitable territories. Maybe yours—why not find out.

BURKS

building quality pumps since 1914

PUMPS

AND WATER SYSTEMS

Money-saving compression type fittings for discharge, suction and pressure piping

- **Patented Kam-Action impeller-diffuser combination that produces greater volume and pressure**
- **Patented, adjustable, non-chattering, positive-acting diaphragm type control valve**
- **Automatic pressure switch with built-in, manually operated On-Off control**
- **Oversize ball thrust bearings in motor assure long life**
- **No water lubricated support bearing to be "cut out" by sand**

DECATUR PUMP CO., 66 ELK ST., DECATUR, ILL.

☐ Rush Bulletin 597 describing your new "HV" Series Multi-Stage Centrifugal Pumps.
☐ Opportunities for ☐ Dealers ☐ Distributors

Name _____

Company _____

Address _____

City _____ State _____

These interested spectators are watching a Bucyrus-Erie 1-W drill demonstration which was put on last fall during an Open House held by Wilson & Beemer Supply Co. at its recently-opened Marshalltown, Iowa, office and warehouse.

The **Driller**

The monthly magazine for water well drillers

South Milwaukee, Wis.

Bulk Rate
U.S. POSTAGE
PAID
South Milwaukee, Wis.
Permit No. 1

University Microfilms

313 N 1st St
Ann Arbor Mich

W23w

Forwarding Postage Guaranteed
Form 3547 Requested